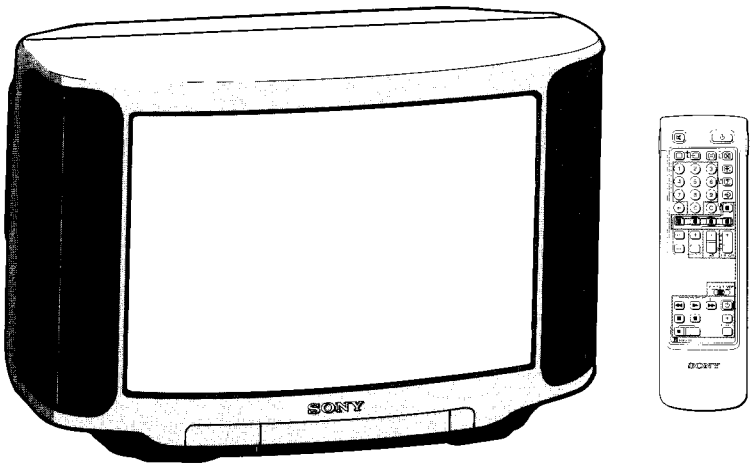
SERVICE MANUAL

BE-3B CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-C2581A	RM-833	Italian	SCC-G81C-A	KV-C2581D	RM-833	AEP	SCC-G77D-A
KV-C2580B	RM-833	French	SCC-G85C-A	KV-C2583E	RM-833	Spanish	SCC-G82C-A



MICROFILM

TRINITRON® COLOR TV

SONY®

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
AEP	B/G/H, D/K	GERMAN Stereo	PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Italian	B/G/H	GERMAN Stereo	ITALIA VHF:A-H2 (C) UHF: 21-69 PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10	PAL NTSC4.43, NTSC3.58 (VIDEO IN)
French	B/G/H, L, I	NICAM Stereo	L VHF:F02-F10 UHF:F21-F60 CABLE:B-Q B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 I UHF:B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
Spanish	B/G/H,	NICAM Stereo	PAL B/G VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69	PAL NTSC4.43, NTSC3.58 (VIDEO IN)

MODEL	AEP	Italian	French	Spanish
Power Consumption	108W	108W	108W	108W

SPECIFICATIONS

Picture Tube — Hi-Black Trinitron
Approx. 63 cm (25 inches)
(Approx. 59 cm picture measured diagonally)
110° -deflection

Input/Output Terminals

[REAR]

- 1 21-pin Euro connector (CENELEC standard)
  - inputs for audio and video signals
  - inputs for RGB
  - outputs of TV video and audio signals
- 2/S 2 21-pin Euro connector
  - inputs for audio and video signals
  - inputs for S video
  - outputs for audio and video signals (selectable)

[FRONT]

- 3 Video input - phono jack
- 3 Audio inputs - phono jacks
- 3 S video input 4-pin DIN
- Ω Headphone jacks : stereo minijack

Sound output	2 x 15W (Music power)
Power requirements	220 - 240V
Dimensions (WxHxD)	Approx. 720x497x480 mm
Weight	Approx. 35.5kg
Supplied accessories	RM-833 Remote Commander (1) IEC designation R6 battery (1)
Other features	NICAM , FASTEXT, TOPTEXT.

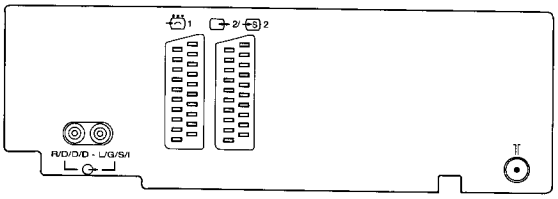
[RM-833]

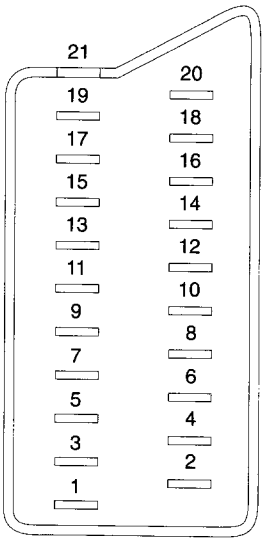
Remote control system	infrared control
Power requirements	1.5V dc 1 battery IEC designation R6 (size AA)
Dimensions	Approx. 65x225x21 mm (w/h/d)
Weight	Approx. 157g (Not including batteries)

Design and specifications are subject to change without notice.

Item \ Model name	KV-C2581A	KV-C2580B	KV-C2581D	KV-C2583E
RGB Priority	ON	ON	OFF	OFF
Woofer Box	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON
AKB in 16:9 mode	ON	ON	ON	ON
Norm B/G	ON	ON	ON	ON
Norm I	OFF	OFF	OFF	ON
Norm D/K	OFF	OFF	ON	OFF
Norm AUS	OFF	OFF	OFF	OFF
Norm L	OFF	ON	OFF	OFF
Teletext	ON	OFF	ON	ON
Nicam Stereo	OFF	ON	OFF	ON
Language Preset	Italian	French	Deutsch	Spanish

21 pin connector (1 2/4)

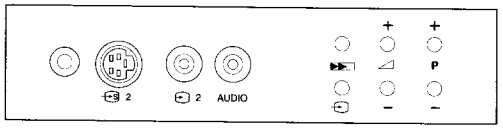




Pin No.	1	2	4	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
2	○	○	○	Audio input B (right)	Standard level : 0.5V rms Output impedance : More than 10kohm*
3	○	○	○	Audio output A (left)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level : 0.5V rms Output impedance : More than 10kohm*
7	○	●	●	Blue input	0.7 ± 3dB, 75 ohms, positive
8	○	○	○	Function select (AV control)	High state (9.5 - 12V) : Part mode Low state (0 - 2V) : TV mode Input impedance : More than 10k ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal : 0.7 ± 3dB, 75 ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground (red)	
14	○	○	○	Ground(blanking)	
15	○	–	–	Red input	0.7 ± 3dB, 75 ohms, positive
	–	○	○	(S signal) croma input	0.3 ± 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75ohms
17	○	○	○	Ground(video output)	
18	○	○	○	Ground(video input)	
19	○	○	○	Video output	1V ± 3dB,75ohms,positive sync: 0.3V(-3+10dB)
20	○	–	–	Video input	1V ± 3dB,75ohms,positive sync: 0.3V(-3+10dB)
	–	○	○	Video input Y (S signal)	1V ± 3dB,75ohms,positive sync: 0.3V(-3+10dB)
21	○	○	○	Common ground (plug, shield)	

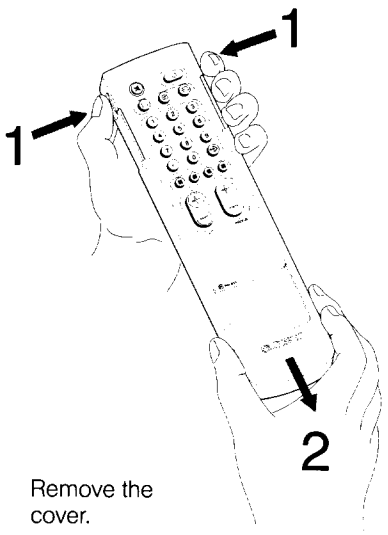
○ Connected ● Not Connected (open) * at 20Hz - 20kHz

Pin No	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm , positive Sync. 0.3V -3/+10 dB
4	C (S signal) input	0.3V ± 3dB 75 ohm , positive Sync.

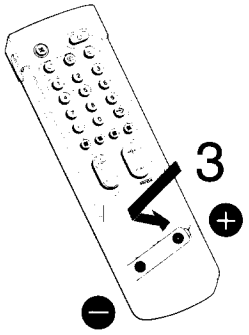


The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

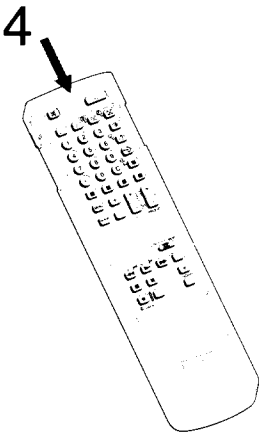
Getting Started



Remove the cover.



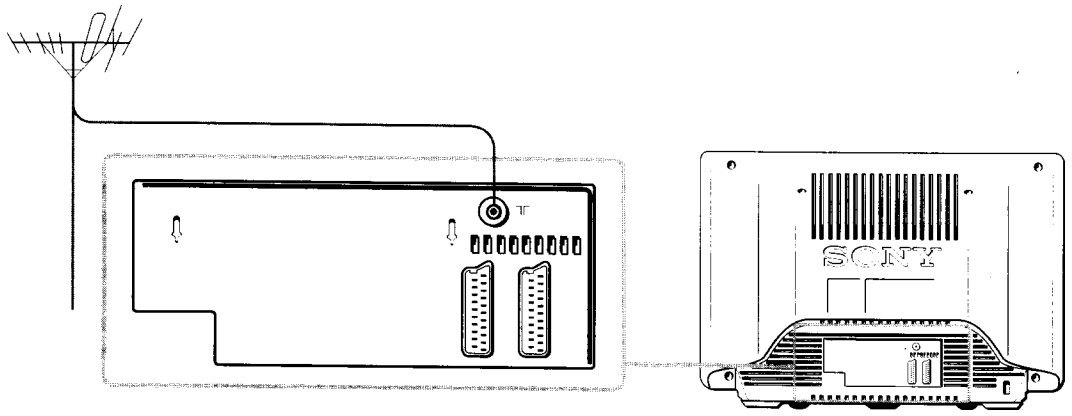
Check the correct polarity.



Refit the outside cover making sure that the Full Function side is visible.

About Battery Life
Under normal operation, a battery will last up to half a year.

Connect the aerial to the ⊤ socket at the rear of the TV. (cable not supplied)



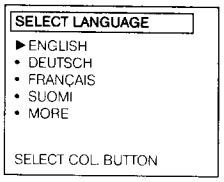
Choosing a Language

(See inside of front cover and back cover)

1 Depress ⏻ A on the TV.
The TV turns on. If the standby indicator B on the TV is lit, press ▢ ❸ or any number button ❹ on the Remote Commander.

2 Press MENU ❼ on the Remote Commander.
The SELECT LANGUAGE screen appears.

3 Press one of the colour buttons ⓱ on the Remote Commander to select a language (Press the white button ⓱ to display other language alternatives). The SELECT LANGUAGE screen clears and all subsequent menus appear in the chosen language.



Note: From the second time when you turn on the TV, the MENU screen appears instead of the SELECT LANGUAGE screen. Press the yellow button ⓰ then press the white button ⓱ to redisplay the SELECT LANGUAGE screen.

Tuning in to Channels

You can tune in up to 60 channels to programme positions either automatically or manually.

auto tuning:	A single button press allows all receivable channels to be tuned. Use if you are unfamiliar with the channel numbers of stations.
manual tuning:	Use if you are familiar with the channel numbers of stations.

Choose the more appropriate way for you.

Tuning in to Channels Automatically

There are two possibilities for auto tuning;

A. On the TV: hold down ▶▶□ E on the front of the TV for 2 seconds
Note: The button ▶▶□ for Automatic Presetting of channels is protected to prevent accidental usage. Use a pencil to press it.
or

B. On the Remote Commander: as follows

1 Press MENU ❼.

2 Press the white button ⓱.

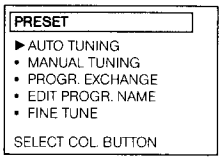
3 Hold down the red button ⓰ for 2 seconds,

Note: Press the green button ⓱ to cancel.

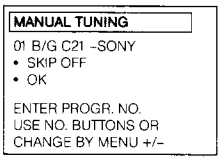
Tuning in to Channels Manually

1 Press MENU ❼.
The MENU screen appears. (MENU)

2 Press the white button ⓰ to select PRESET.
The PRESET screen appears.



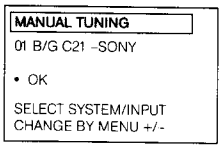
3 Press the green button ⓱ to select MANUAL TUNING
The MANUAL TUNING screen appears.



4 Press the number buttons ❹ or MENU +/– ❾ to select a programme position.
If you use the number buttons ❹, enter a double-digit number. (e.g. for programme number 4, first press 0, then 4)

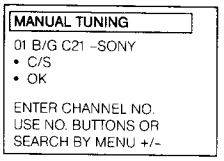
5 Press the green button ⓱.

Note: Use MENU +/– ❾ to select TV system.
You can alternatively select input sources which may be assigned to programme positions.
The display changes as follows:
B/G ➡ D/K ➡ AV1 ➡ RGB ➡ AV2 ➡ YC2 ➡ AV3 ➡ YC3



6 Pess the green button ⓱.

Note: If a video input source is selected in step 5, this is now stored.
Refer to step 4 to tune other programme positions.



7 If you have selected B/G in step 5, press the red button ⓱ to select C (regular channel) or S (cable channel).

8 Press the number buttons ❹ or MENU+/– ❾ to select the channel number.
If you use the number buttons ❹, enter a double-digit number. (e.g. for channel 23, first press 2, then 3)

9 Press the green button ⓱ to store.

Note: If you want to preset other channels, repeat steps 4 to 9.

10 Press MENU ❼ twice to return to the normal screen.

Note: You can skip unused programme positions when selecting programmes with the PROGR +/– buttons ⓲.
Press the red button ⓱ to skip in step 4. However, the skipped programmes may still be called up when you use the number buttons.

Basic TV Operations

Turning the TV on and off

Turning on
Depress ⏻ A on the TV.

Turning off temporarily
Press ⏻ ⓾ on the Remote Commander.
The TV enters standby mode and the standby indicator B on the front of the TV lights up.

Turning on again
Press ▢ ❸, PROGR +/– ⓲, or one of the number buttons ❹ on the Remote Commander.

Turning off completely
Depress ⏻ A on the TV.
Note: It is recommended to use ⏻ A to turn off the TV. This could help you save energy.

Selecting TV Programmes

Press PROGR +/– ⓲ or press the number buttons ❹.

To select a double-digit number
Press -/-- ❺, then the number buttons ❹.

Adjusting the Volume

Press ◿ +/– ⓳.

Muting the Sound

Press 🔇 ❶
To resume normal sound, press 🔇 ❶ again.

Displaying the On-screen Indications

Press ⓘ ⓮ once to display the on-screen indications.
Press again to make the indications disappear.

Operating the TV Using the Buttons on the TV

With the buttons on the TV, you can adjust or select the functions as follows:
Press ◿ +/– D to adjust the volume.
Press P +/– C to select programme numbers or to turn the TV on from the standby mode.
Press ⇨ F to select the input source.
Press ⏭ E to preset channels automatically.

Advanced TV Operations

Operating the Menu System

You can adjust picture and sound, preset channels to programme positions and utilise other convenient features by using the following menu system.

Press:	to:
1 MENU ❼ (MENU)	enter the MENU screen
2 a colour button ⓱ (II)	select an item you want to change (The selected item is marked by a triangle.)
3 MENU +/– ❾ (MENU) (+) (–)	change (or adjust) the contents of the item
4 MENU ❼	return to the MENU screen
5 MENU ❼ again	return to the normal screen
Press MENU ❼ once or twice whenever you want to return to the normal screen.	

Note: When selecting menus, the picture becomes darker. If, however, an item in the PICTURE ADJUSTMENT menu is selected, normal level of TV picture is restored to allow the best adjustment.

Adjusting the Picture and Sound

Although picture and sound are adjusted at the factory you can adjust them to suit your own taste.

1 Press MENU ❼.
The MENU screen appears. (MENU)

2 Press the red button ⓱ to select PICTURE or the green button ⓱ to select SOUND.

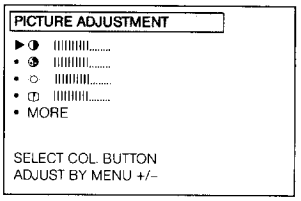
3 Press the respective colour button ⓱ to select an item.

4 Press MENU +/– ❾ to adjust.

5 Press MENU ❼ twice or wait until the menu displays disappear automatically to return to the normal screen.

PICTURE ADJUSTMENT

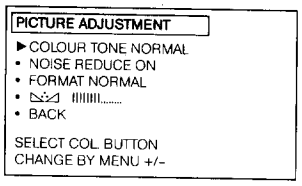
(First Page)



Press colour button	Effect
Red: For Picture ◑	Less —+— More
Green: For Colour ◕	Less —+— More
Yellow: For Brightness ☼	Darker —+— Brighter
Blue: For Sharpness ◫	Softer —+— Sharper
White:	Next page of PICTURE ADJUSTMENT

PICTURE ADJUSTMENT

(Second Page)

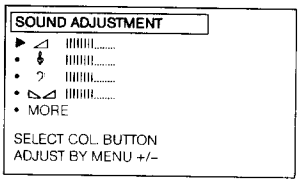


Press colour button	Effect
Red: For Colour Tone	Normal ⇨ Warm (reddish colour tone) ⇨ Cool (blueish colour tone)
Green: For Noise Reduce	ON: Reduces picture noise (in case of low signal level) OFF: Normal setting
Yellow: For Format	Normal: Normal setting 16:9 Wide screen effect
Blue: For Hue control (only for NTSC video signals)	Reddish ——+—— Greenish
White:	Back to first page of PICTURE ADJUSTMENT

Note: Press →•← ❽ on the Remote Commander to reset to the factory preset levels for picture and sound.

SOUND ADJUSTMENT

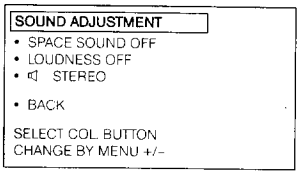
(First Page)



Press colour button	Effect
Red: For Volume	Less ——+—— More
Green: For Treble	Less ——+—— More
Yellow: For Bass	Less ——+—— More
Blue: For Balance	More left – more right
White:	Next page of SOUND ADJUSTMENT

SOUND ADJUSTMENT

(Second Page)



Press colour button	Effect
Red: For Space Sound	OFF: normal sound ON: for a special acoustic sound effect
Green: For Loudness	OFF: normal sound ON: when listening to music broadcast
Yellow: For Stereo	Stereo ⇨ Mono A (left channel) ⇨ Mono B (right channel) ⇨ Mono
White:	Back to first page of SOUND ADJUSTMENT

Note: Press →•← ❽ on the Remote Commander to reset to the factory preset levels for picture and sound.

Using Special Features

With your TV you can utilise special features such as Parental Lock or Sleep Timer.

1 Press MENU ❼.
The MENU screen appears. (MENU)

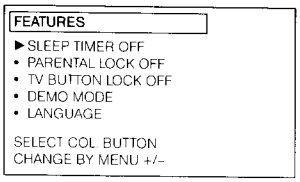
2 Press the yellow button ⓱ to select FEATURES.

3 Press the respective colour button ⓱ to select an item.

4 Press MENU +/– ❾ to change.

5 Press MENU ❼ twice or wait until the menu displays disappear automatically to return to the normal screen.

FEATURES



Press colour button	Effect
Red: For Sleep Timer (Automatic switch off function)	OFF ⇨ 0:30 ⇨ 1:00 ⇨ 1:30 ⇨ 2:00 (hours) After the selected time the TV set switches itself automatically into standby mode.
Green: For Parental Lock (For preventing children from watching programmes which you consider unsuitable)	OFF: Normal setting ON: The TV-channel you are watching is now blocked. In this way you can prevent undesirable broadcasts from appearing on the screen.
Yellow For TV Button Lock	OFF: Normal setting ON: The buttons on the TV do not function anymore. (The Remote Commander still operates)
Blue: For Demo Mode	ON: A sequence of menu pictures is displayed. Press any button on the Remote Commander to stop the function.
White: For Language	The SELECT LANGUAGE screen appears.

Advanced Presetting Functions

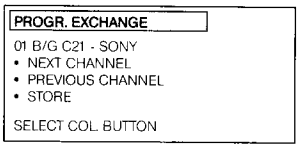
Exchanging Programme Positions

You can exchange the programme positions to a preferred order (example: exchange programme 09 (channel C21) with programme 15 (channel C24).

1 Press MENU ❼.
The MENU screen appears (MENU)

2 Press the white button ⓱.
The PRESET screen appears.

3 Press the yellow button ⓱.
The PROGR. EXCHANGE SCREEN appears.



4 Press the white button ⓱ repeatedly until the desired programme number (09) appears.

5 Press the red or the green button ⓱ repeatedly until the desired channel number (C24) appears.

6 Press the white button ⓱ to store.
Now exchange has been completed. Channel C24 is tuned in to programme 09 and channel C21 is tuned in to programme 15.

7 Press MENU ❼ twice to return to the normal screen.

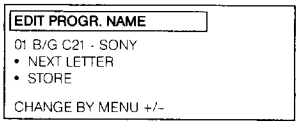
Editing Programme Names

You can edit the programme names up to five letters.

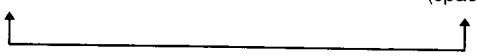
1 Press MENU ❼
The MENU screen appears. (MENU)

2 Press the white button ⓱.
The PRESET screen appears.

3 Press the blue button ⓱.
The EDIT PROGR. NAME screen appears.
The first character flashes.



4 Press MENU +/- ⑨ to edit the first letter.
The first letter changes as follows
A ⟷ B ⟷ ... ⟷ Z ⟷ 1 ⟷ ... 9 ⟷ "–" (space).



5 Press the red button ⑰ to move to the next letter.

6 Repeat steps 4 to 5, until the fifth letter is chosen.

7 Press the green button ⑰.
The programme name is stored, and the normal screen appears. To edit another programme name, repeat steps 1 to 7.

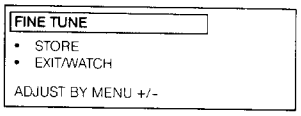
Fine Tuning

You can adjust the receiving conditions by the FINE TUNE function.

1 Press MENU ⑦
The MENU screen appears. (MENU)

2 Press the white button ⑰.
The PRESET screen appears.

3 Press the white button ⑰ again.
The FINE TUNE screen appears.



4 Press MENU +/- ⑨ to adjust the receiving condition.

5 Press the red button ⑰ to store the adjustment, or press the green button ⑰ not to store.
Now the normal screen appears. If you have pressed the green button, the fine tuned condition is cancelled once you choose another programme.

Note: If the FINE TUNE screen disappears automatically before you press the red button ⑰, the fine tuned condition is not stored. Repeat steps 1 to 5.

Tuning in to a Channel Temporarily

You can tune in to a channel temporarily, even when it has not been preset.

1 Press C ⑯ on the Remote Commander.
For cable channels press **C** ⑯ twice. The indication "C" (or "S" for cable channels) appears on the screen.

2 Enter a double digit channel number using the number buttons (e.g. for channel 23, first press 2, then 3).
The channel appears.
However, the channel is not stored.

Teletext Operation

TV stations broadcast teletext programmes via the TV channels. For basic operation of teletext, use the simple side of the Remote Commander. For the advanced features of teletext, use the buttons indicated in green on the full function side of the Remote Commander.

Basic Teletext Operation

Switching Teletext on and off

1 Select the channel which carries the teletext service you wish to view.

2 Press ⊜ ⓫ to display Teletext.
If no teletext signal is broadcast, the indication P100 is displayed on a black screen.

3 Input three digits for the page number using the number buttons ❹.
The numbers are displayed on the screen and the requested page appears in a few seconds.
Note: If you make a mistake, type in any three digits, then re-enter the correct page number.

4 Press ▢ ❸ to return to the TV mode.

Notes:
- To change the teletext channels. First press ▢ ❸ to return to the TV mode, then repeat steps 1 to 3.
- If the signal of a TV channel is weak, teletext errors may occur.

Advanced Teletext Operation

Using Fastext
With Fastext you can access pages with one button press. When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons ❻ on the Remote Commander.
Press the corresponding colour button ❻ on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed in a few seconds.

Requesting the Index page
Press ⓘ ⓱. The Index page appears.

Accessing the next or preceding page
Press ⊡ (PAGE −) or ⊡ (PAGE +) ⓲. The next or the preceding page appears on the screen.

Superimposing the teletext display on the TV picture
Press ⊜ ⓫ once if you are in text mode or press ⊜ ⓫ twice if in TV mode.
To return to the normal teletext display press ⊜ ⓫ again.

Preventing a teletext page from being updated or changed
Press ⓗ (HOLD) ❷. The HOLD symbol (ⓗ) appears on the screen and the selected subpage is held until you press ⊜ ⓫ to cancel.

Enlarging the teletext display
Press ⊜ ⓭ once to enlarge the upper half. Press twice to enlarge the lower half. Press again to restore the normal display.

Revealing concealed information (e.g. answers to a quiz)
Press ⓡ (REVEAL) ⓮. The information is revealed. Press ⓡ ⓮ again to conceal the information.

Watching TV while waiting for a requested page to be displayed

1 Request a new teletext page.

2 Press ⊠ (TEXT CL) ⓬.
The TV programme is displayed and the symbol ⊜ is displayed at the top of the page.
Note: When the requested page is available the page number is displayed at the top of the screen.

3 Press ⊜ ⓫ to view the page.

To cancel the request
Display the teletext page, then press ⊜ ⓫. The request is now cancelled. Press ▢ ❸ to resume TV mode.

Using the Favourite Page system
You can store up to four of your favourite teletext pages per programme with the help of the Favourite page system. In this way you have quick access to the pages you watch frequently.

Storing the Favourite Pages

1 Select the page you would like to store using the number buttons ❹.

2 Press ⇢ ⓯ twice.
The colour prompts at the bottom of the screen flash.

3 Press any of the colour buttons ❻ on the Remote Commander to store the selected page.
The page is now stored on this button.

Repeat steps 1 to 3 for the other 3 pages available.

Displaying the Favourite pages

1 Press ⇢ ⓯.

2 Press the colour button ❻ corresponding to the colour prompt onto which the desired page is stored.
The page is requested. (It may take a few seconds to be received).

Note: Step 1 must be taken before every favourite page selection otherwise the normal Fastext facility operates.

Using the Time Function in the TV mode
Press ⓣ ⓬ to request the time. Press again to cancel the request.
Note: This function is available only when teletext is broadcast.

Connecting Other Equipment

You can connect optional audio/video equipment to this TV such as VCRs, video disc players, cameras or stereo systems.

Connector	Acceptable input signal	Available output signal
1 M (AV1/RGB)	Audio/video and RGB signal	Audio/video signal from TV Tuner
2/S 2 L (AV2/YC2)	Audio/video and S-video signal	Audio/video signal from selected source
3/3 G H (AV3)	Audio/video signal	No outputs
3/S3 G I (YC3)	Audio/S-video signal	No outputs

To watch a video input picture, press ❷ until the desired video input appears.
To return to the normal TV picture, press ❷ repeatedly or press ❸.
If you have a decoder, connect it to 1 M

Connecting a VCR Using the TV Aerial Terminal

Connect the aerial output of the VCR to the aerial terminal K of the TV. It is recommended to tune in the VCR signal to programme number "0". For details, see "Tuning in to Channels Manually" on page 20.

S video input (Y/C input) I L.
Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals.
Separating the Y and C signals prevents them from interfering with each other and therefore improves the picture quality (especially luminance). This TV is equipped with 2 video input terminals through which these signals can be input directly.

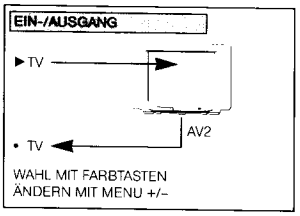
Checking and Selecting the Input and Output Sources Using the Menu

You can display a menu screen to see which input and output source are selected. You can also change the selecting using this menu.

Checking the Input and Output Sources

1 Press MENU ❼.
The MENU screen appears.

2 Press the blue button ⓱ to select INPUT/OUTPUT.
The INPUT/OUTPUT screen appears.



Selecting an Input Signal

Press the red button ⓱ to select INPUT. Press MENU +/– ❾ to select the desired input source.
You can select among the following sources:

TV ⟷ AV1 ⟷ RGB ⟷ AV2 ⟷ YC2 ⟷ AV3 ⟷ YC3

Selecting an Output Signal

The 2/S 2 connector L outputs the source input from the other connectors. Press the green button ⓱ to select OUTPUT. Press MENU +/– ❾ to select the desired output source.
You can select among the following sources:

TV ⟷ AV1 ⟷ AV2 ⟷ YC2 ⟷ AV3 ⟷ YC3

Note: Press ❼ twice or wait until the menu display disappears automatically to return to the normal screen.

Remote Control of Other Sony Equipment

You can use the TV Remote Commander to control most Sony remote-controlled video equipment such as: Beta, 8 mm or VHS VCRs or video disc players.

Tuning the Remote Comander to the equipment

1 Set the VTR 1/2/3 MDP selector ⓴ according to the equipment you want to control:
VTR 1: Beta or VCR
VTR 2: 8mm VCR
VTR 3: VHS VCR
MDP: Video Disc Player

2 Use the buttons ㉑ to operate the additional equipment.

Notes:
• If your video equipment is furnished with a COMMAND MODE selector: set this selector to the same position as the VTR 1/2/3 MCP selector on the TV Remote Commander.
• If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate
• When you use the ● (record) button, make sure to press this button and the one to the right of it simultaneously.

Using Headphones

You can utilise headphones. Connect them to the headphone jack J, then the sound from the speakers goes off.
Note: You can't control the sound adjustment except for volume.

For your Information

Troubleshooting

Here are some simple solutions to problems which may affect the picture and sound.

No picture (screen is dark), no sound

- Plug the TV in.
- Press ⏻ A on the TV. (If the standby indicator B is lit, press ▢ 3 or any number button 4 on the Remote Commander.)
- Check if the selected video source is on.
- Turn the TV off for three or four seconds and then turn it on again using ⏻ A.

Poor or no picture (screen is dark), but good sound

- Press MENU 7 to enter the MENU screen, and press the red button 17, then adjust ◑ and ☼.

Good picture but no sound

- Press ◿ + 19.
- If 🔇 is displayed on the screen, press 🔇 1.

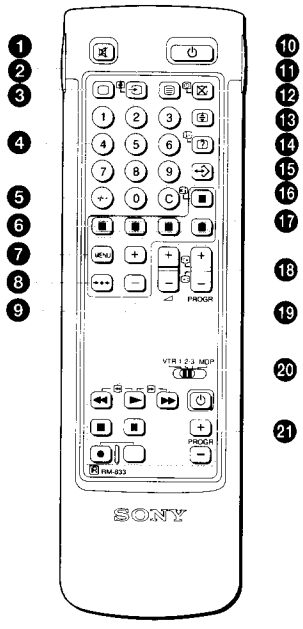
No colour for colour programmes

- Press MENU 7 to enter the MENU screen, and press the red button 17, then adjust ◉.

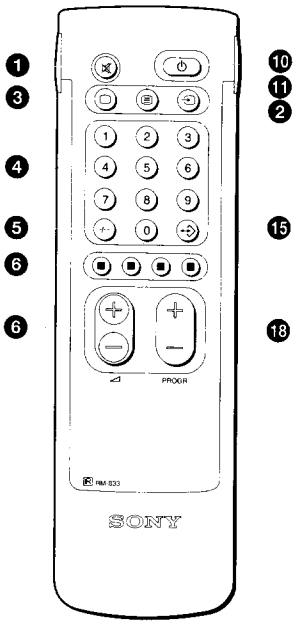
Remote Commander does not funcion

- Replace the battery.

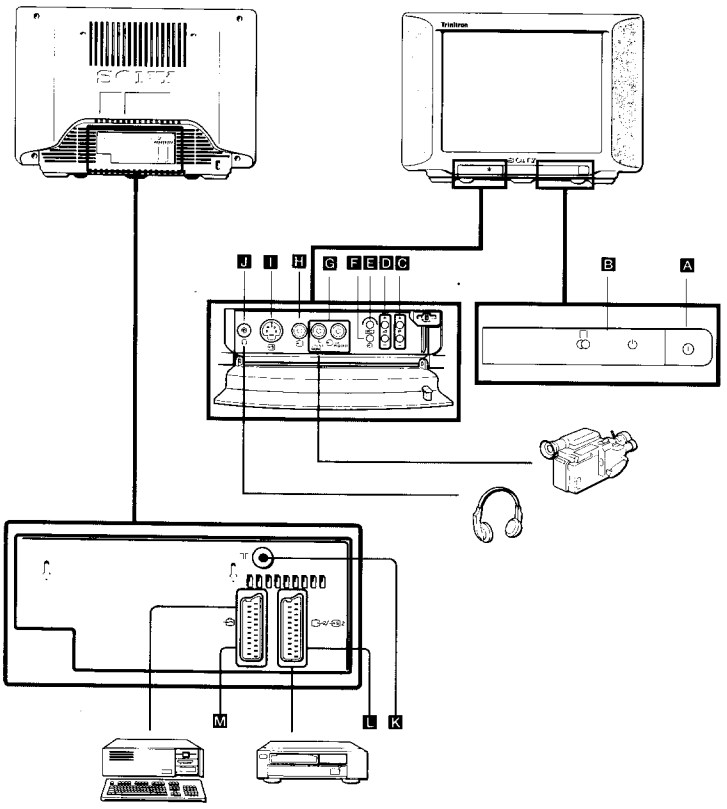
If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.



Volständige Seite
Full-Function Side

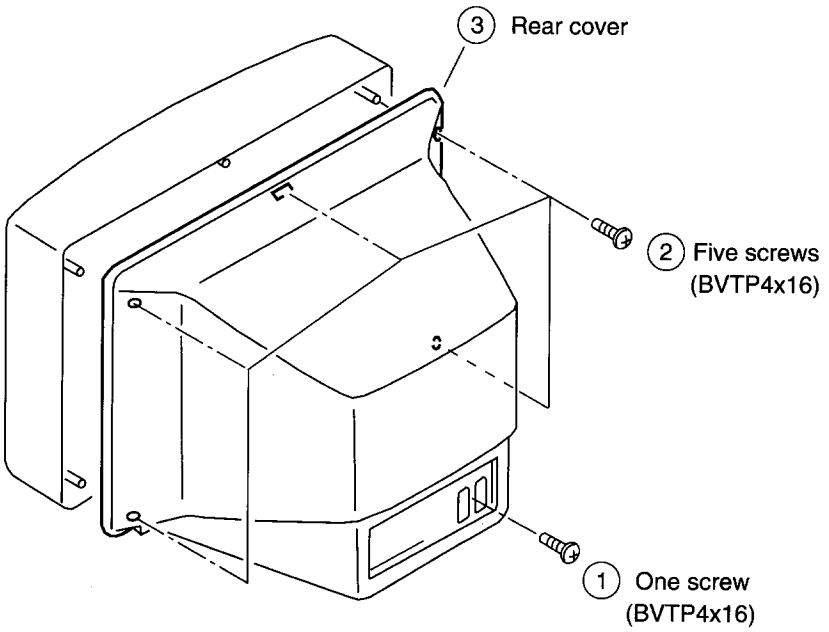


Vereinfachte Seite
Simple Side

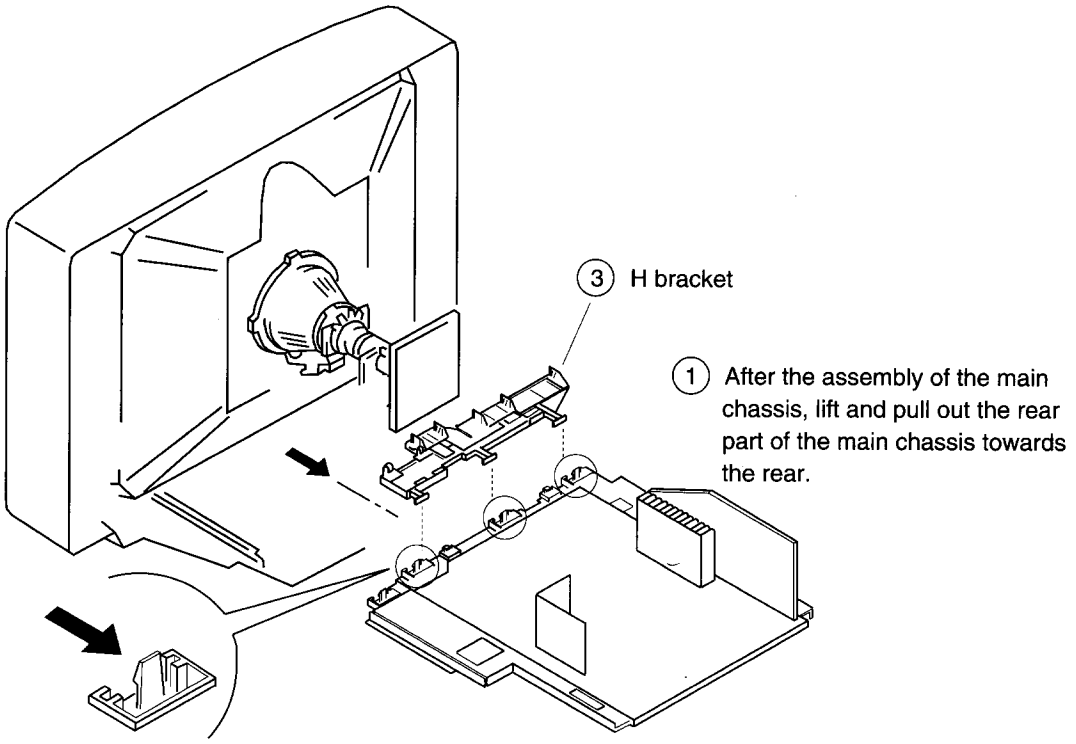


SECTION 2
DISASSEMBLY

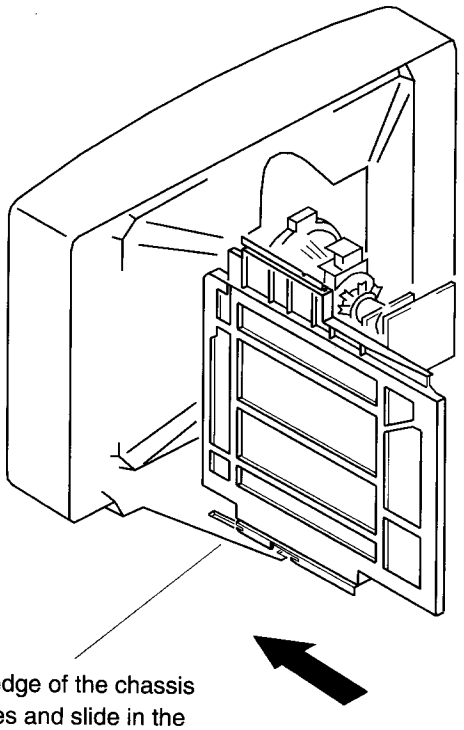
2-1. REAR COVER REMOVAL



2-2. CHASSIS ASSY REMOVAL

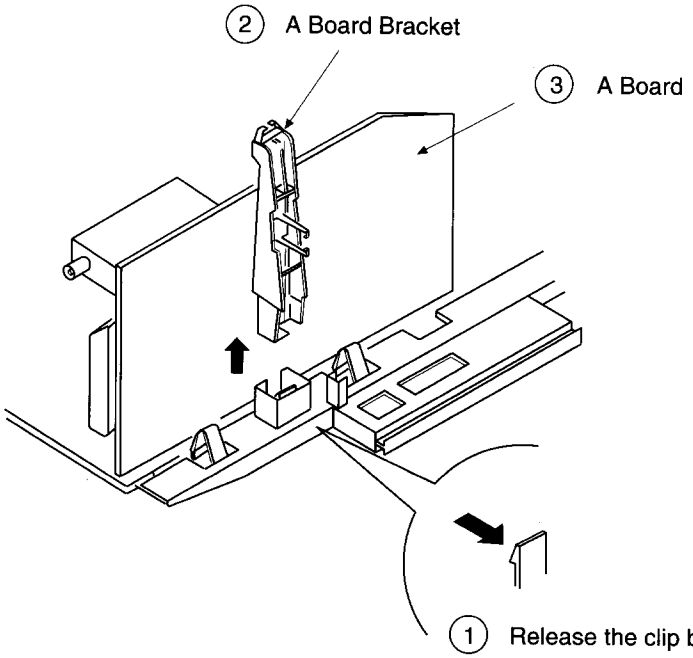


2-3. SERVICE POSITION



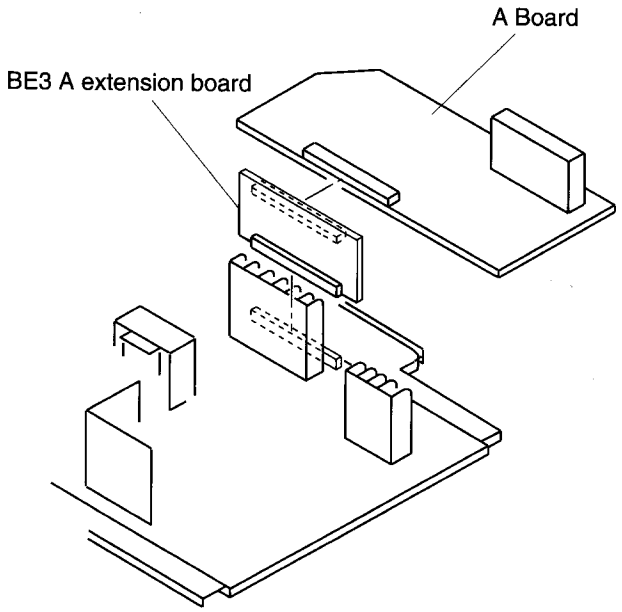
Locate the 2 slots on the edge of the chassis bracket in the locating holes and slide in the direction of the arrow

2-4. A BOARD REMOVAL

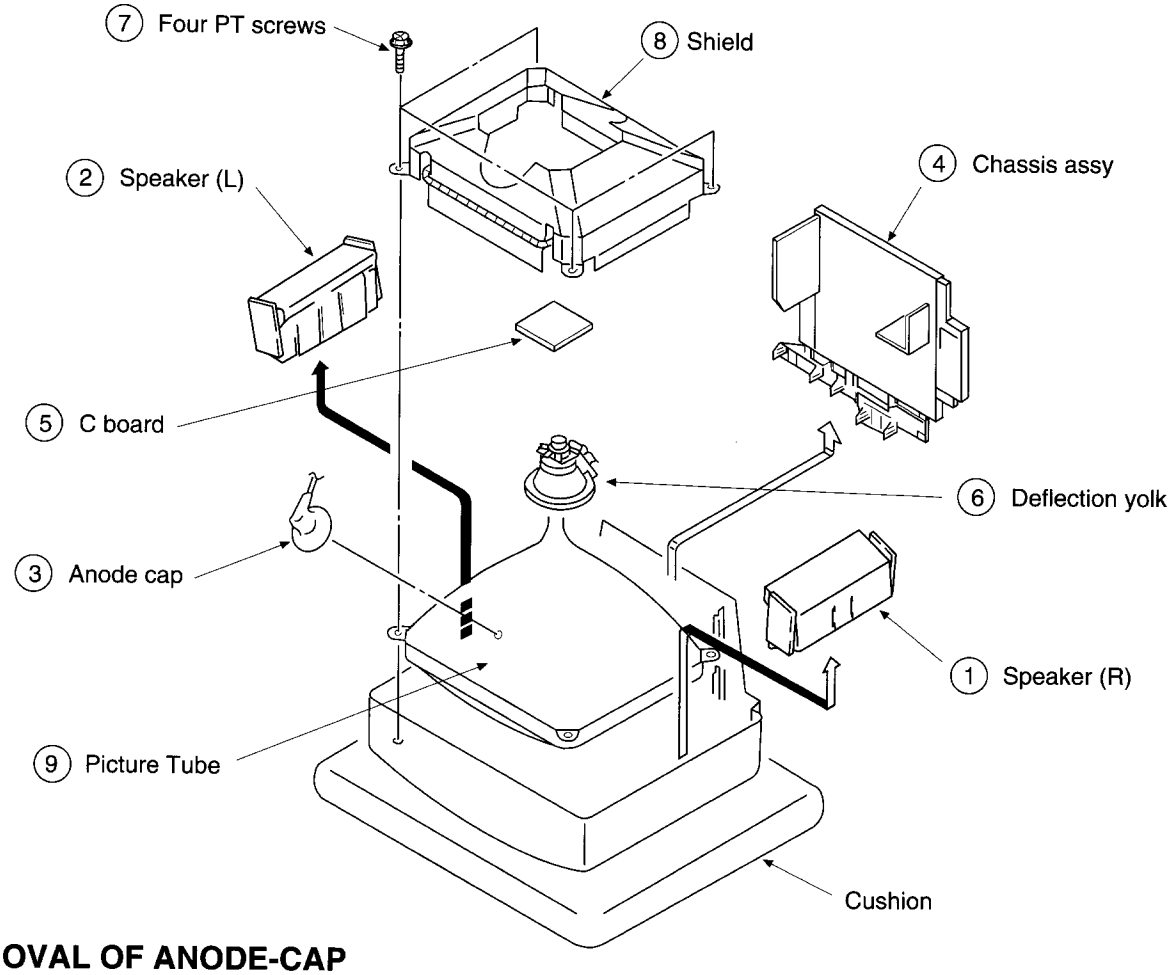


1 Release the clip by pressing in the direction of the arrow, shown and lift out the A board bracket

2-5. EXTENSION BOARD



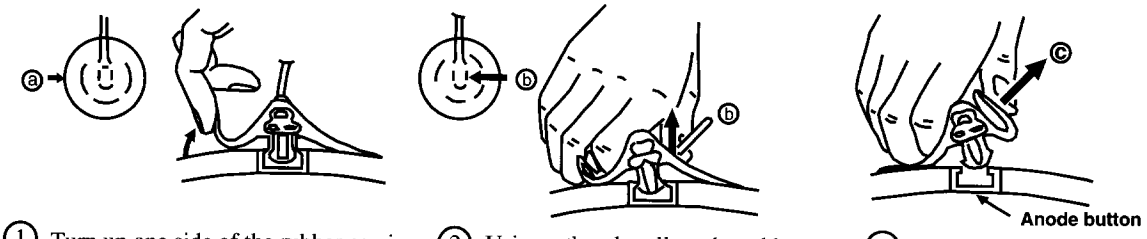
2-6. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

*** REMOVING PROCEDURES.**



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ

② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ

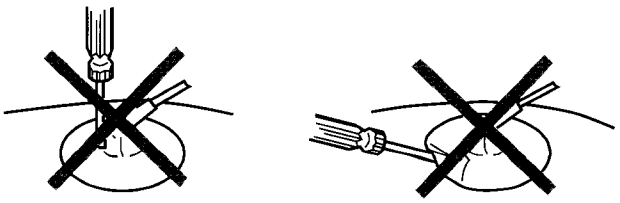
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ

• HOW TO HANDLE AN ANODE-CAP

① Don't damage the surface of anode-cap with sharp shaped material !

② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built into the rubber.

③ Don't turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or damage the rubber.



SECTION 3
SET - UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to these settings :

◑ Contrast ..... 80% (or remote control normal)
☼ Brightness 50%

- Carry out the following adjustments in this order :

1. Beam landing
2. Convergence
3. Focus
4. White balance

Note: Testing equipment required.
1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparation:
- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator. CONTRAST, BRIGHTNESS } normal
2. Position neck assy as shown in Fig.3-2.
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke forward and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Fig. 3-1 - 3-3)
5. Move the deflection yoke forward and adjust so that the entire screen becomes red. (See Fig. 3-1)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig. 3-4)

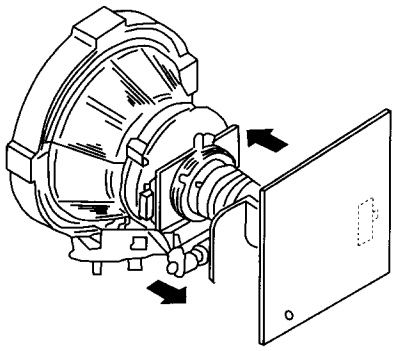


Fig. 3-1

Fig. 3-2

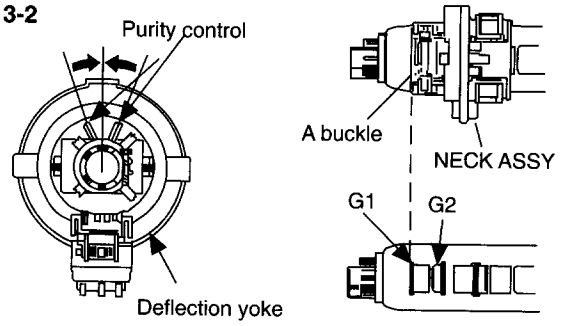
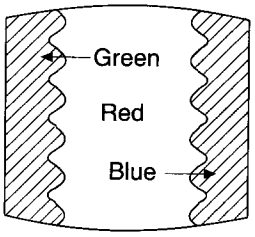


Fig. 3-3



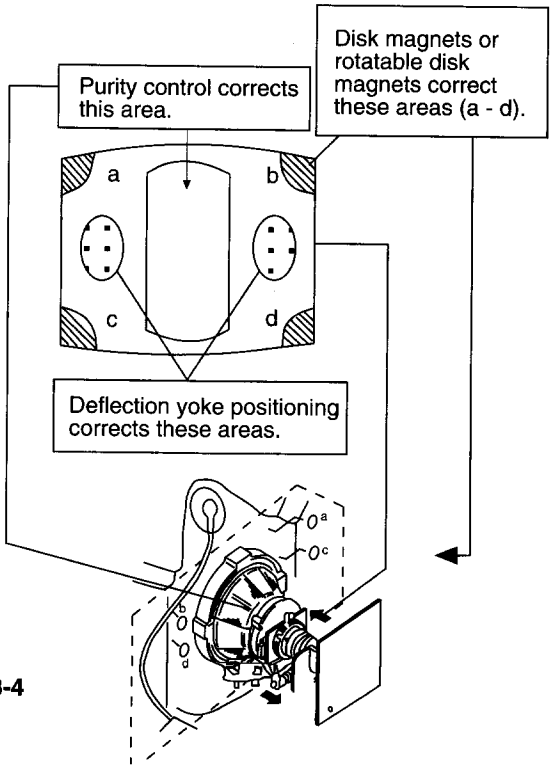


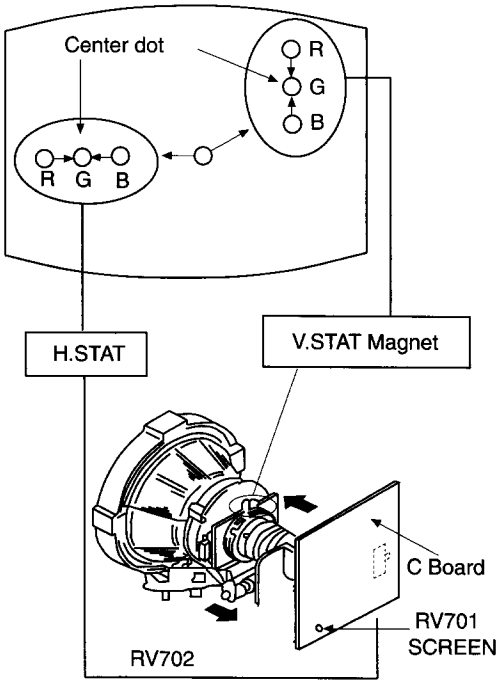
Fig. 3-4

3-2. CONVERGENCE

Preparation:

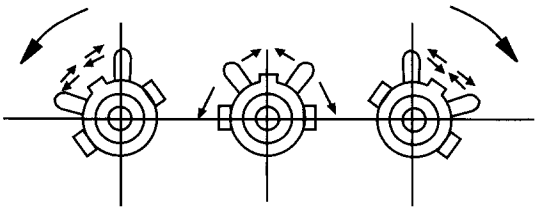
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide a dot pattern.

(1) Horizontal and vertical static convergence

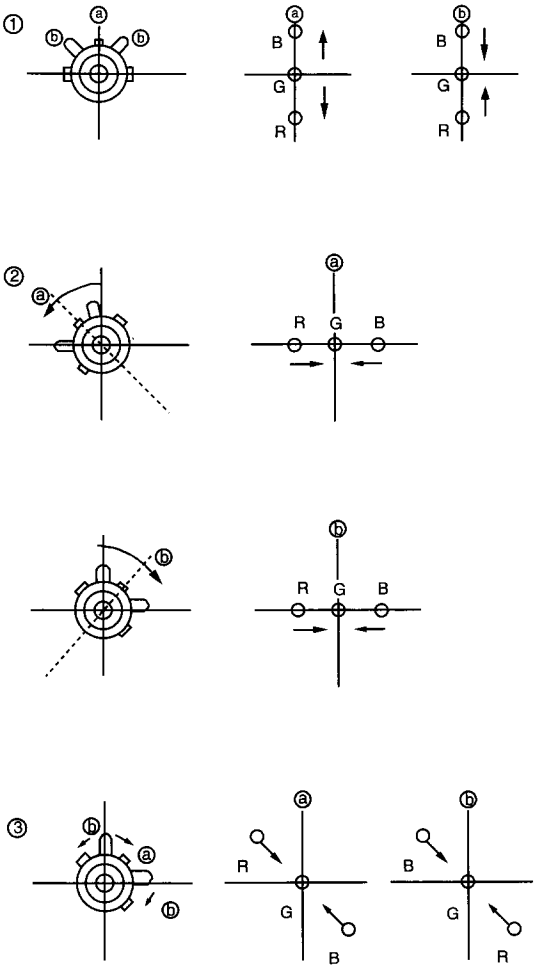


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

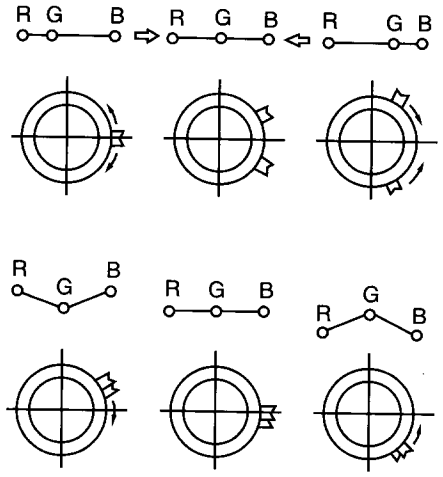
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.

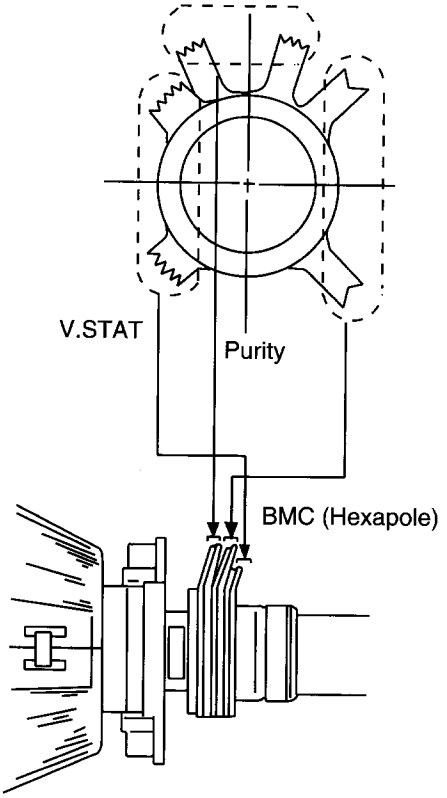


4. If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the red, green, and blue points move as shown below.



- Operation of BMC (Hexapole) Magnet





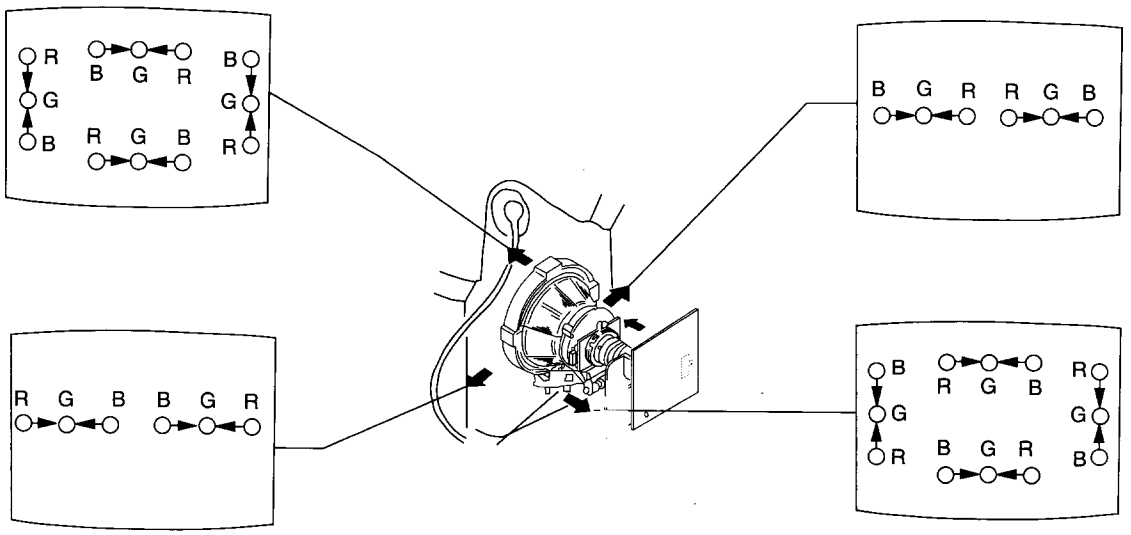
- The respective dot position resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
  Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of the screen (by moving the dots in the horizontal direction).

(2) Dynamic convergence adjustment.

Preparation:

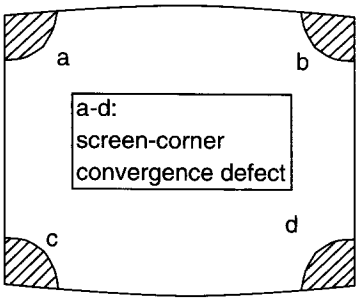
- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

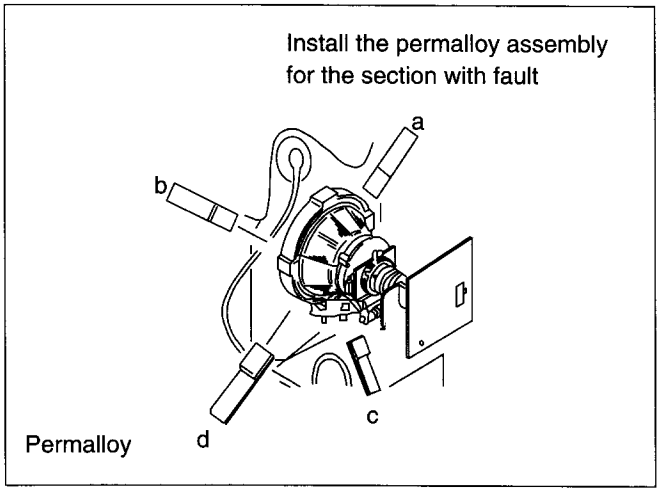
1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Re-install the deflection yoke spacer.



(4) Screen corner convergence.

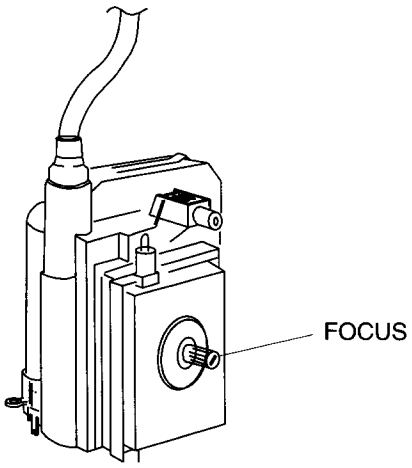
If you are unable to adjust the corner convergence properly, correct them with the use of permalloy assemblies.





3-3. Focus

Adjust the focus to optimize the screen.



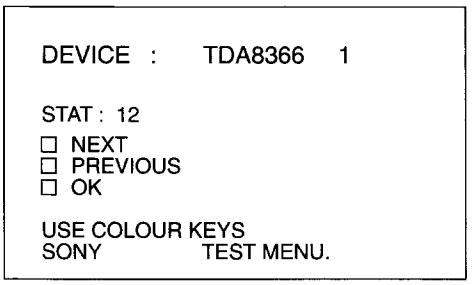
3-4. WHITE BALANCE

Screen G2 Setting

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 180V DC to the R,G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

White balance adjustment

1. Receive an all-white signal.
2. Enter into service mode. (Refer to the section 4 "Electrical Adjustment" on how to enter service mode.)
3. Select TDA8366 1 on menu.



4. Press the White button on the Remote Commander to enter into the device Menu.
5. Press the Red button 10 times "Next" "Next" "Next" to select HWB RED, adjust to 040.
6. Press the Red button to select HWB GREEN, adjust with the + and - menu buttons so that the white balance becomes optimum.
7. Press the Red button to select HWB BLUE, adjust with the + and - menu buttons so that the white balance becomes optimum.
8. Press the TV button twice on the Remote Commander to store the data and return to TV operation.

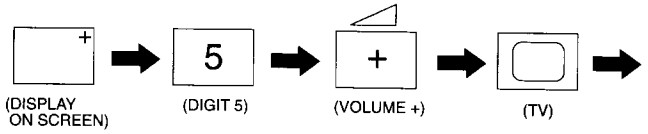
SECTION 4
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander RM-833.

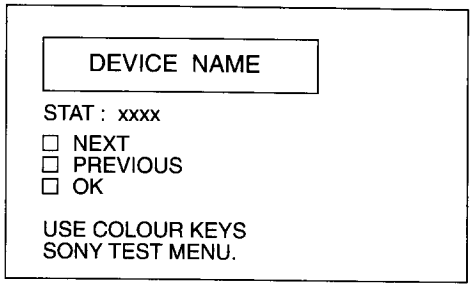
HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set and enter into standby mode.
2. Press the following sequence of buttons on the Remote Commander.

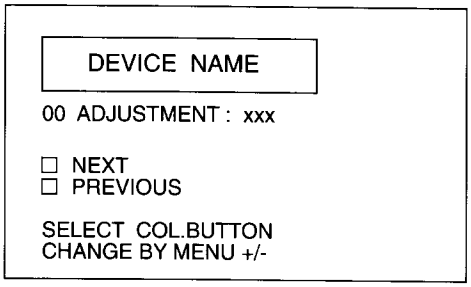


"TT " will appear in the top right corner of the screen. Other status information will also be displayed.

3. Press the MENU button on the Remote Commander to obtain the menu on the screen.



4. Press the Red (Next) and Green (Previous) buttons to select the device corresponding to the adjustment item from the table. Then press the White button (OK).



5. Press the Red (Next) or Green (previous) buttons to select the adjustment item. Then press the ▽ and △ buttons to change the data to comply with each standard.

6. Turn off the power to quit the service mode when adjustments are completed.

Initial Conditions for setup of TDA8366, TDA6612 and SAA7283. (Stereo Models Only)

TDA8366 1	INIT VALUE	TDA8366 2	INIT VALUE
Hue	31	Interlace	00
H Shift	Adj	Sync Mode	00
H Size	Adj	Col Dec	00
Pin Amp	Adj	Vert Div	00
Corn Pin	Adj	Vid ID	00
Tilt	Adj	EHT Track	01
V.Linear	Adj	En V Grd	00
V.Size	Adj	Serv Blk	00
S.Corr	Adj	OVP Mode	00
V.Cent	Adj	Aspect R	00
HWB Red	Adj	Start Freq	00
HWB Green	Adj	Y/C Input	00
HWB Blue	Adj	PAL/NTSC	00
Peaking	8	Xtal PLL	00
Bright	32	Y Delay	07
Colour	32	RGB Blk	00
Picture	37	Noise Cor	00
AGC Set	00	Fast Blk	01
Srce Sel 1	00	AFC Wind	00
Srce Sel 2	00	IF Sensty	00
Time Con	03	Mod Std	00
Xtal Ind	03	Vid Mute	01
FF Freq	02		

TDA6612	INIT VALUE	TDA6612	INIT VALUE
MPX Per	00	Mute 2	01
Quasi St	00	C1/2LS	00
Bass Exp	00	C1/2KH	00
H Pulse	00	Mono	01
Matrix St	00	Scart	00
Bypass	00	Scart D	00
Vol L Sp	07	AM	00
Vol R Sp	07	SAA7283	INIT VALUE
Vol HP	00	Mon M1/M2	01
Pll Sync	00	DM Select	01
Mute 3	01	SSWIT 123	07
Treble	08	Port 2	00
Bass	09	Mute Def	00
X Talk Adj	Adj	AMDIS	00
Mute 1	00	E Max	80
		E Min	01

4-2. TEST MODE 2 :

Is available by pressing Test button twice, OSD 'TT ' appears. The functions described below are available by pressing the two numbers. To release the Test Mode 2, press 0 twice, or switch the TV into Stand-by Mode.

00	switch Test Mode 2 off
01	picture maximum
02	picture minimum
03	Volume 35%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Ageing Condition (Volume min., Picture max., Brightness max.
08	Shipping Condition (Analog Values are RESET due to factory setting, Prog 1 is selected, TT Mode is switched off)
09	"Menu" Flag request
10	Tenth entry is deleted
11	dummy
12	dummy
13	dummy
14	Forced AV 16:9 detection on/off
15	Read factory setting from NVM Reads Volume, Balance, Treble, Bass, Brightness, Contrast, Hue, Sharpness, Colour values from ROM to the actual used values (Last Power Memory)
16	Save actual used values as RESET values Memorize actual used values Balance, Treble, Bass, Hue, Sharpness at RESET position in NVM.
17	Preset Label for AV Sources
18	RGB Priority on/off
19	Clear all preset labels
20	Tenth entry is deleted
21	Sub Contrast
22	Sub Colour
23	Sub Brightness
24	Set destination = U RGB Priority = Off
25	Set destination = D RGB Priority = Off
26	Set destination = B RGB Priority = On
27	Set destination = K RGB Priority = Off
28	Set destination = L RGB Priority = Off
29	Set destination = E RGB Priority = Off
30	Tenth entry is deleted
31	Set Destination = A RGB Priority = On
32	dummy
33	Auto AGC
34	N/S Pin Adjust
35	Manual AGC Adjust
36	dummy
37	dummy
38	dummy
39	dummy
40	Tenth entry is deleted
41	Re-initialise NVM
42	Production use only
43	Initialise Geom Settings
44	Initialise all favorite pages = 100
45	Channel locks = off
46	IR Channel Pressetting Mode The channel pressetting can be done by a Special IR Transmitter (Ver 2 and above software only)
47	dummy
48	Set NVM testbyte to 44h
49	Erase the NVM Testbyte (this byte detects already stored NVM's) After selecting this function, switch TV Off and On -> the NVM will be preset by µ-Controller.

In Test Mode the Menu display is switchable by the Speaker-Off button.

Note : For Test Modes 41 - 49 it is necessary to ensure that the TV is set to Prog 59.

SUB BRIGHTNESS ADJUSTMENT

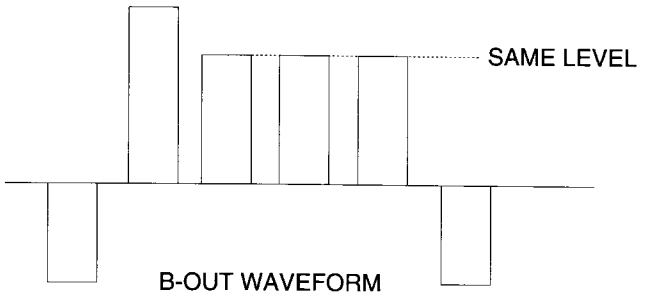
1. Input a Phillips pattern.
2. Enter into service mode and press 23.
3. Adjust data so that 0-IRE of grey scale and CUT-OFF 20-IRE are only slightly visible on screen.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains a small 100% area on a Black Background.
2. Enter into service mode and press 01 to have PIC max followed by 21.
3. Connect oscilloscope to pin (1) of CN703 (R OUT) and adjust HWB Red data of TDA8366 1 to obtain 2.3Vp-p.

SUB COLOR ADJUSTMENT

1. Input a PAL color bar signal.
2. Connect an oscilloscope to pin (3) of CN703 (B OUT) on the C board.
3. Enter into service mode and press 22.
4. Adjust data so that the right sides of the waveform are set to the same level.



STEREO SEPARATION ADJUSTMENT

1. Input a 1KHz stereo signal to the L-ch and a 400Hz stereo signal to the R-ch.
2. Enter into service mode and select the "Test Menu" to be TDA6612.
3. Select the Stereo Xtalk Adjustment Menu, by using the Red (Next) and Green (Previous) buttons.
4. Monitor the Scart 1 L-channel output and adjust the data so that the R-channel sound is not detected in the L-channel.

I.F. COIL ADJUSTMENT (T101) - B/G, D/K, I AND L STANDARD FOR CONTINENTAL MODELS.

1. Apply a 38.9MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for negative modulation.
3. Measure the voltage at the AFT test point and adjust (T101) to obtain 2.4V +/- 0.2V.

I.F. COIL ADJUSTMENT (T101) - I, STANDARD FOR U.K. MODELS.

1. Apply a 39.5MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for negative modulation.
3. Measure the voltage at the AFT test point and adjust (T101) to obtain 2.4V +/- 0.2V.

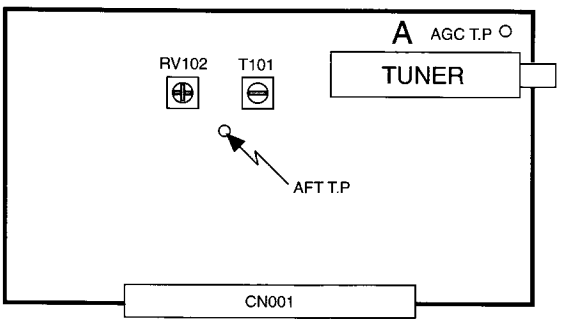
L, BAND 1 ADJUSTMENT (RV102) - L, STANDARD FOR FRENCH MODELS.

1. Apply a 33.95MHz signal at 100dBuV to the input of SWF101.
2. Receive a channel so that the I.C. is selected for positive modulation and system L band 1.
3. Measure the voltage at the AFT test point and adjust (RV102) to obtain 2.4V +/- 0.2V.

Note : Only adjust RV102 after T101 has been correctly adjusted.

AGC ADJUSTMENT

1. Receive an off- air signal.
2. Enter the service mode, ("Test" "Test") and 35.
3. Adjust the data so that there is no snow or cross - modulation visible on the screen.
4. Change the receiving off-air channel, and confirm the above status.



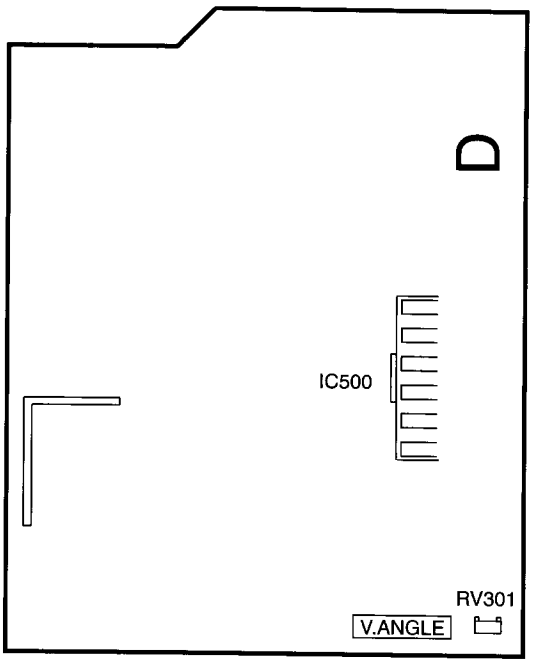
- A Board component side -

DEFLECTION SYSTEM ADJUSTMENT

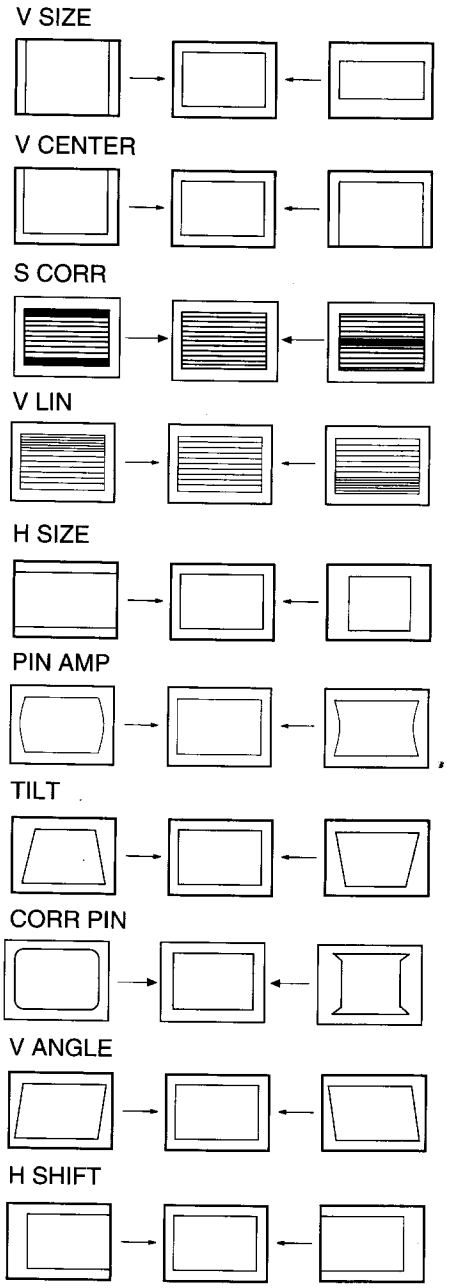
1. Enter into service mode.
2. Select and adjust each item in order to obtain the optimum image.

Item No	Adjustment item.	Data Amount
03	H SHIFT	ADJ.
04	H SIZE	ADJ.
05	PIN AMP	ADJ.
06	CORR PIN	ADJ.
07	TILT	ADJ.
08	V LINEAR	ADJ.
09	V SIZE	ADJ.
0A	S CORR	ADJ.
0B	V CENTER	ADJ.

Note : V ANGLE is adjusted by a Variable Resistor on the 'D' Board (RV301)



- D Board Component Side -



4-3. BE3 SELF DIAGNOSTIC SOFTWARE

The identification of errors within the BE-3 chassis is triggered in 1 of 2 ways :- 1: Bus busy or 2: Device failiure to respond to IIC. In the event of one of these situations arrising the software will first try to release the bus if busy (Failiure to do so will report with continous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the led (Series of flashes which must be counted) See Table 1., on fatal errors are reported with this method.

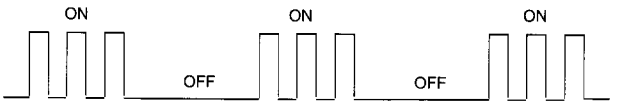
If a fatal error is found the set will simply stay in whichever state it was when the error occured, but if a non fatal error occurs the set will try to continue operation.

Table 1

Device	LED Error Count	Fatal Error
NVM	2 .. 9	√
Teletext	10	
Jungle	11	√
Video_sw	12	
Tuner	13	√
Nicam	14	
Audio_cont	15	√

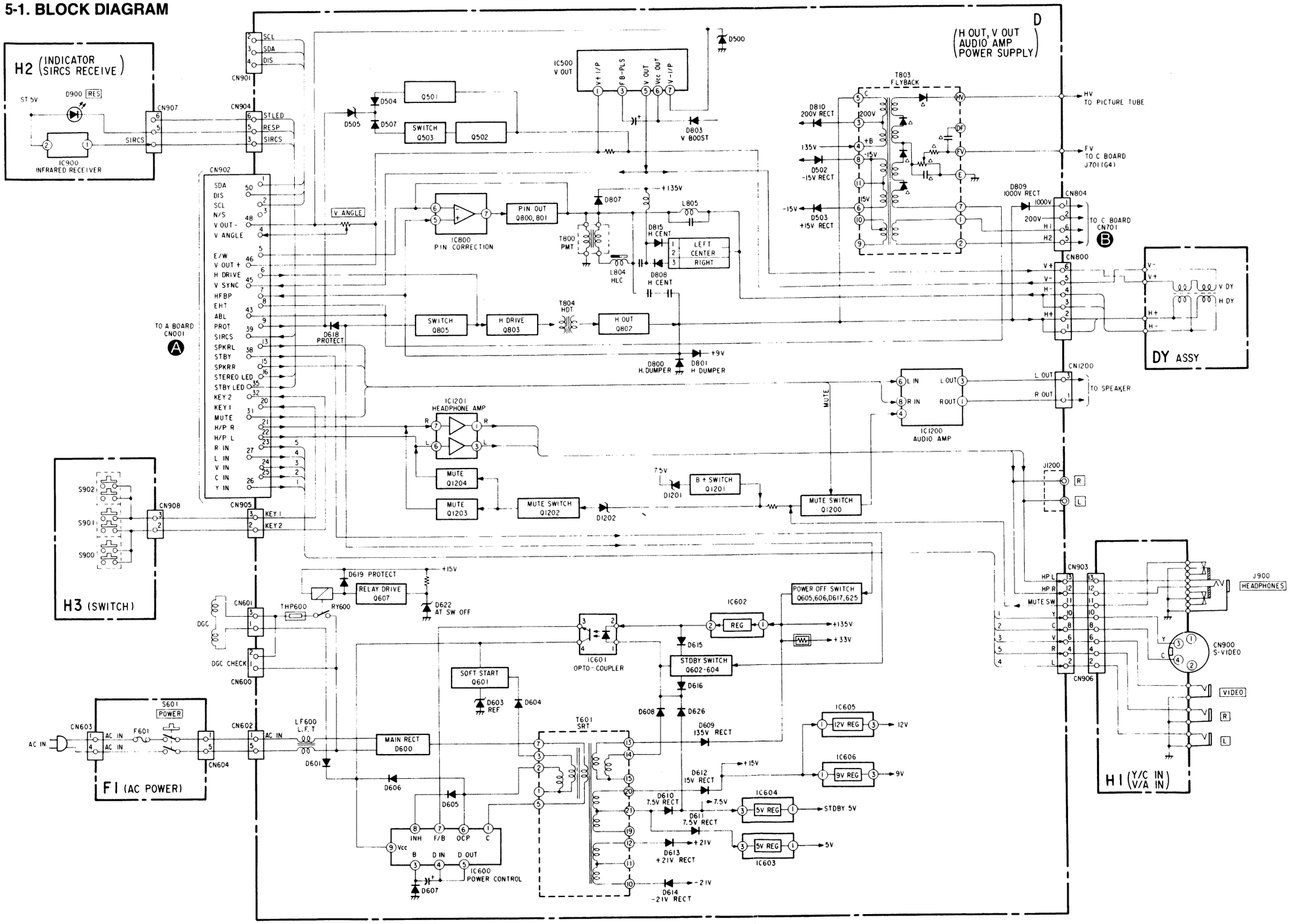
Flash Timing Example : e.g. error number 3.

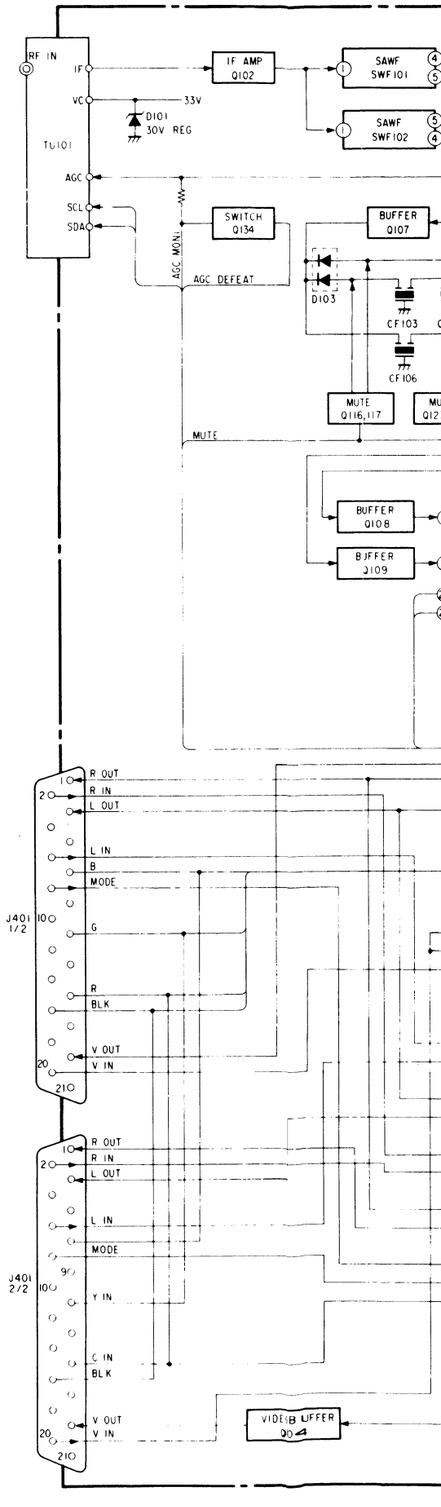
Stby LED



SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAM





D

(H OUT, V OUT
AUDIO AMP
POWER SUPPLY)

T803
FLYBACK

HV
TO PICTURE TUBE

FV
TO C BOARD
J701 (G4)

D809
1000V RECT

CN804

TO C BOARD
CN701
B

CN800

V DY
H DY

DY ASSY

CN1200

TO SPEAKER

IC1200
AUDIO AMP

J1200
R
L

CN903

J900
HEADPHONES

CN900
S-VIDEO

CN906

VIDEO
R
L

12V
9V

HI (Y/C IN
V/A IN)

A

(VIF/SIF, SYNC SE
JUNGLE, AUDIO SE
A/V SELECT

IC101
VIF/SIF

RF IN
IF AMP
Q102
SAWF
SWF101
SAWF
SWF102
TU101
33V
D101
30V REG
AGC
SCL
SDA
VIF I/P
VIF I/P
SIF
SIF
TAGC
CAGC
QSS
FMI
FM2
AF2 OUT
AF1 OUT
V OUT
VIDEO AMP
Q132,131
VCO2
VCO1
VI
VO
T101
77.8MHz
CF102
AFT
TOP
STD SW
AFT
AGC ADJ
SYS
SWITCH
Q134
AGC MONI
AGC DEFEAT
BUFFER
Q107
D103
CF103
CF104
CF106
MUTE
Q116,117
MUTE
Q123,124
MUTE

BUFFER
Q130
BUFFER
Q133

IC202
SYNC SEP
SYNC SEP
PHASE
COMP
H OSC
SYNC AMP
Q120
OSC BUFFER
Q114

IC201
AUDIO SELECT
BUFFER
Q108
BUFFER
Q109
L IN
R IN
SDA
SCL
PILOT
MONO
OSC
HP L
HP R
SP L
SP R
L IN
R IN
L OUT
R OUT

SDA/SCL

IC1002
VIDEO PROCESSER
VIDEO
SCL
SDA
SYNC
BLACK
GREEN
BLUE
RED
RS
TB
SYNC BUFFER
Q1001
CLK IN
TDATA
TCLK
TCSB
WINDOW
VIDEO
OSC OUT
IDATA
TCLK
SYNC
WIN
OSC I
IC1001
X1001
13.875MHz

IC1003
RGB SW

IC301
JUNGLE
INT CVBS IN
SECAM REF
SCP OUT
VID. OUT
R-Y OUT
B-Y OUT
B-Y IN
R-Y IN
HFLB IN
EXT CUBS IN
CUBS OUT
SUHS-Y
SUHS-C
R
G
B
FB
R
G
B
BI CURR IN
BCL IN
H OUT
-2 FILTER
EW OUT
V+ OUT
V- OUT
EHT IN
D380
3.58MHz
4.43MHz
X1101
Y IN
Y OUT
AMP
Q314
AGC OUT
SCL
SDA
VM AMP
Q381
VM OUT
Q313, 312
MUTE
Q380

IC302
SYNC
R-Y OUT
B-Y OUT
B-Y IN
R-Y IN

IC303
R-Y OUT
B-Y OUT
SEC IN
SYNC
SEC REF

(HFBP) 25

J401
1/2

J401
2/2

R OUT
R IN
L OUT
L IN
B
MODE
G
R
BLK
V OUT
V IN
C IN

IC401
A/V SELECT
V2
Y2
V3
V OUT 2
LV3
LV2
L TV
L OUT 2
RV3
RV2
R TV
R OUT 2
S3
S2
C2
R OUT I
L OUT I
SCL
SDA
TV
Y OUT
C OUT
V OUT I
EXT SYNC
TEXT OUT
VI
LVI
YI
RVI
CI
V BUFFER
Q403
BUFFER
Q402

VIDEO BUFFER
Q404

AGC ADJ/AFT/SYS
SDA/SCL/AGC MONI/AGC/MUTE

BLK

BLK BUFFER
Q406

D1002
SWITCH

RGB PROT
Q401

IC001
MICRO COMPUTER
CO IN
RESET
AGC
AFT
SYS
AGC
SDA(1)
SCL(1)
BG/IDKL
RGB SWITCH
H SYNC
RGB P
RGB
BLK
SCL(0)
SDA(0)
AGC ADJ
AFT
SYS
AGC MON
SDA
SCL
SECAM TRAP
OSD R
OSD G
OSD B
BLK
BLUE TITLE
MUTE
DIS
SIRCS
LED
STEREO LED
KEY1
KEY2
PROT
V SYNC
N/S
STDBY
AMP
Q11
BUFFER
Q8
SWITCH
Q4
LAMP
Q304

SWITCH
Q12
SWITCH
Q14

IC002
NVM
SCL
SDA

A
(VIF/SIF, SYNC SEP
JUNGLE, AUDIO SELECT
A/V SELECT)

BUFFER Q130

BUFFER Q133

IC202 SYNC SEP

SYNC SEP

PHASE COMP

H OSC

SYNC AMP Q120

OSC BUFFER Q114

IC1002 VIDEO PROCESSER

SYNC BUFFER Q1001

IC1001

X1001 13.875MHz

IC302

IC303

IC301 JUNGLE

INT CVBS IN

SECAM REF

SCP OUT

VID. OUT

R-Y OUT

B-Y OUT

B-Y IN

R-Y IN

HFLB IN

EXT CUBS IN

CUBS OUT

SUHS-Y

SUHS-C

IC1003 RGB SW

3.58MHz

4.43MHz

X301

AMP Q314

AGC OUT SCL SDA

VM AMP Q381

VM OUT Q313,312

MUTE Q380

(HFBP)

AGC ADJ/AFT/SYS

SDA/SCL/AGC MONI/AGC/MUTE

BLK

D1002 SWITCH

BLK BUFFER Q406

RGB PROT Q401

IC1001 MICRO COMPUTER

CO IN

RESET

AGC

AFT

SYS

AGC MON

SDA

SCL

BG/IDKL

RGB SWITCH

H SYNC

RGB P

RGB

BLK

SECAM TRAP

OSD R

OSD G

OSD B

BLK

AMP Q11

BLUE TITLE

MUTE

DIS

SIRCS

LED

STEREO LED

KEY1

KEY2

PROT

V SYNC

N/S

STDBY

BUFFER Q8

SWITCH Q4

AMP Q304

SWITCH Q12

SWITCH Q14

IC1002 NVM

SCL

SDA

D303 D304 D305 D11

BI CURR IN

CUT OFF

BCL IN

H OUT

-2 FILTER

EW OUT

V+ OUT

V- OUT

EHT IN

D380

CN002

CN003

CN001

Y IN

C IN

R IN

V IN

L IN

HPL

HPR

MUTE

KEY2

KEY1

STLED

STBY LED

SPL

STBY

SPR

SIRCS

PROT

ABL

EHT

V SYNC

HFBP

V SYNC

H DRIVE

V OUT +

E/W

V ANGLE

V OUT –

N/S

SCL

DIS

SDA

A

B

C (RGB OUT)

R BKG Q702

G BKG Q705

B BKG Q708

R OUT Q703 704

G OUT Q706,707

B OUT Q709,710

V901 PICTURE TUBE

H RCV G2 G4 HV

D711 PROTECT

RV702 H STAT

RV701 SCRREN

G2(1000V)

FV

TO D BOARD T803 (FBT)

VM (VM OUT)

+12V

DRIVE SW Q1709

135V

VM AMP Q1701,1702,1704

VM MUTE Q1708

D1706

D1707 TRIG

VM AMP BUFFER Q1706,1707

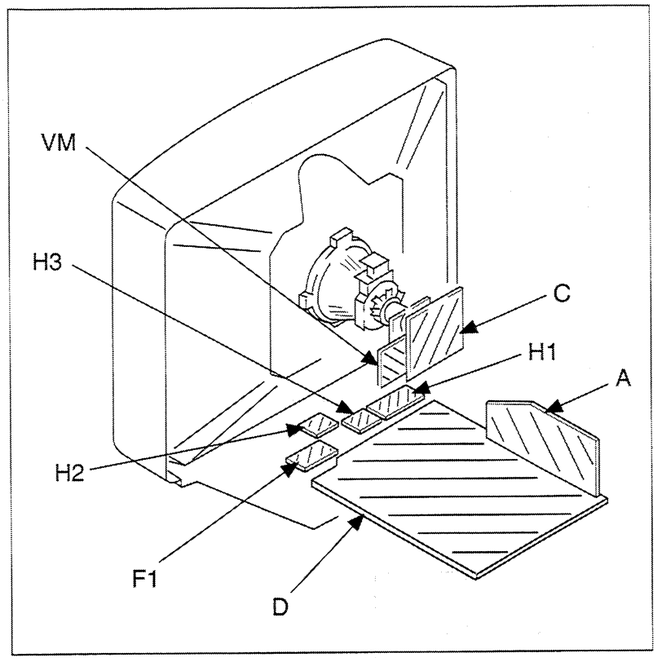
VM OUT Q1703,1705

QP

VM

NECK ASSY

5-2. CIRCUIT BOARDS LOCATION



Reference information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OXIDE
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
	※	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

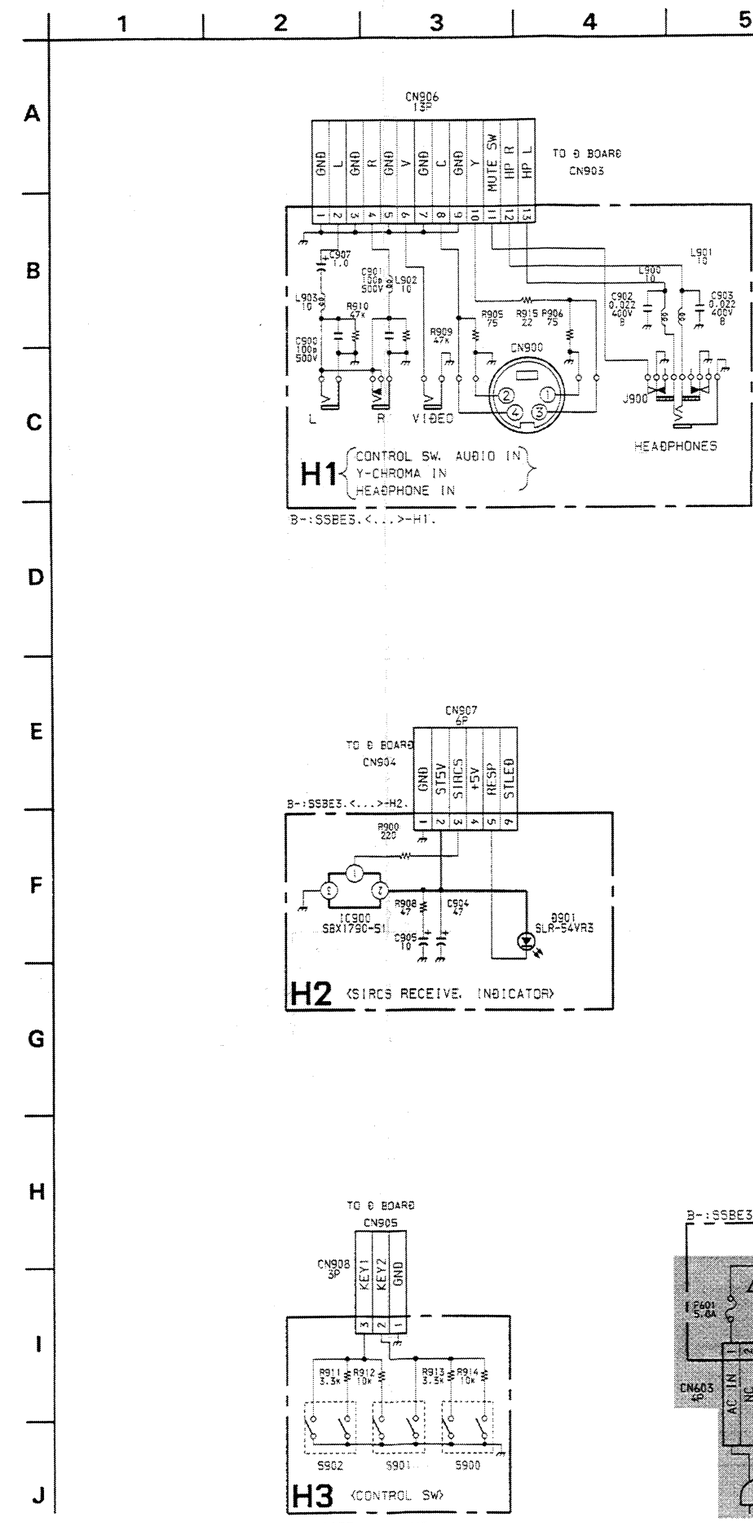
5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytic.
- Indication of resistance, which dose not have one for rating electrical power, is as follows.

  Pitch : 5mm
  Rating electrical power : ¼W

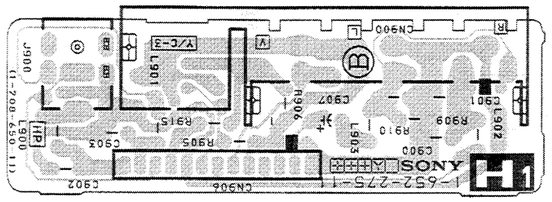
- Chip resistor is in 1/10W.
- All resistors are in ohms. kΩ = 1000Ω, MΩ = 1000KΩ
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- : panel designation or adjustment for repair.
- All variable and adjustable resistors have charactristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- : B+ bus.
- : B− bus.
- : signal path.(RF)
- : earth - ground
- : earth - chassis



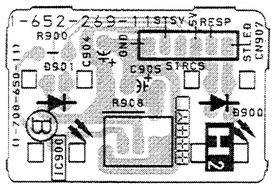
H1 [CONTROL SW, AUDIO IN Y-CHROMA IN, HEADPHONE IN] **H2** [SIRCS RECEIVE INDICATOR] **H3** [CONTROL SW] **F1** [AC IN POWER SW] **D** [HV OUT PIN OUT POWER SUPPLY]

NOTE:
The circuit in
600 Vp-p. Car
inspection or r

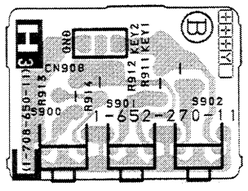
– H1 BOARD –



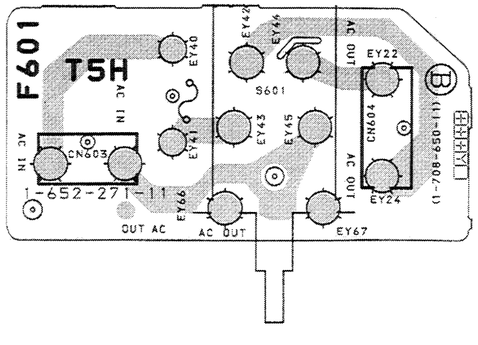
– H2 BOARD –



– H3 BOARD –



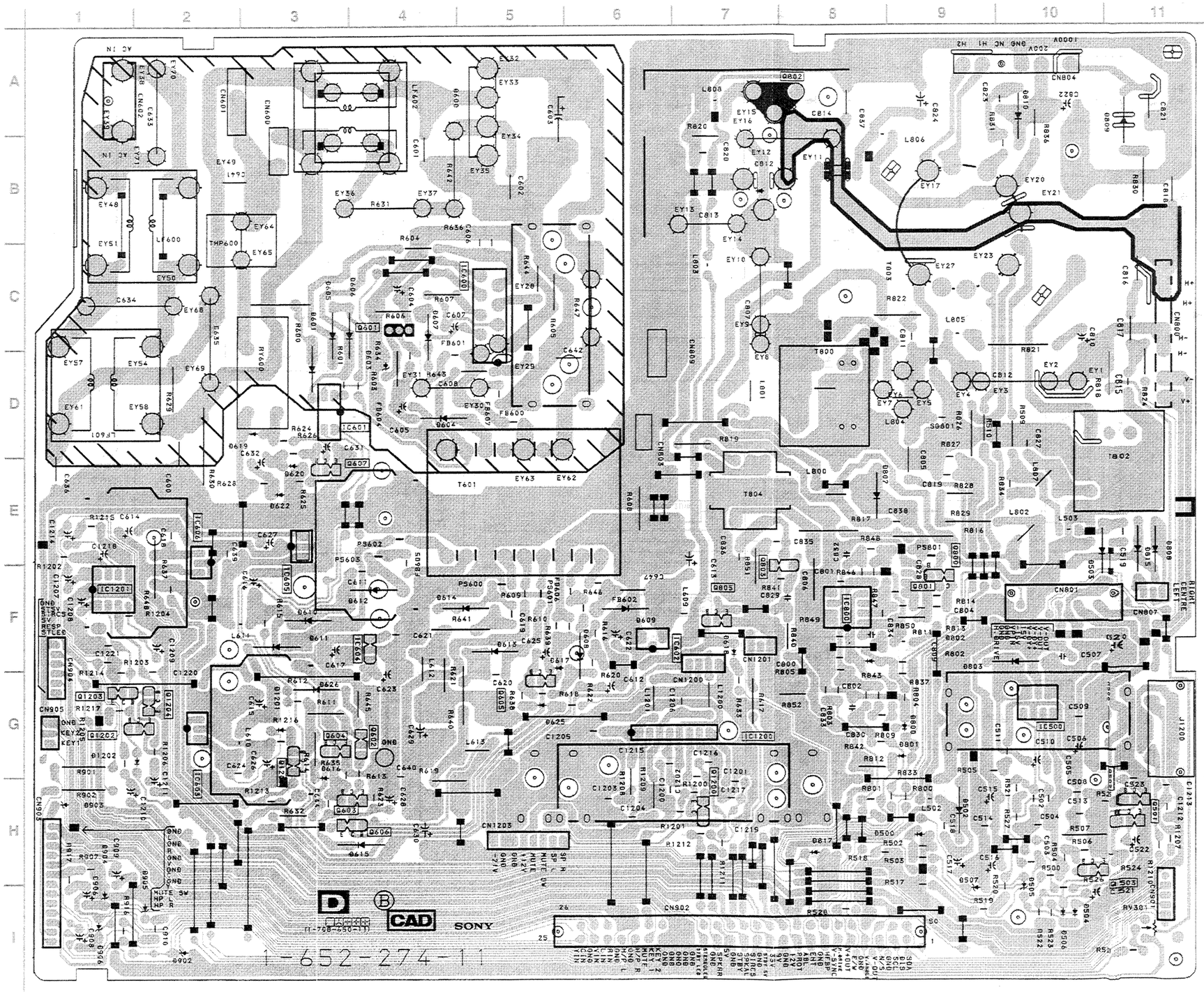
– F1 BOARD –



CN604
SP
AC OUT
NC
NC
NC
AC OUT
TO B BOARD
CN602

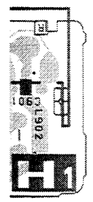
N POWER SW>

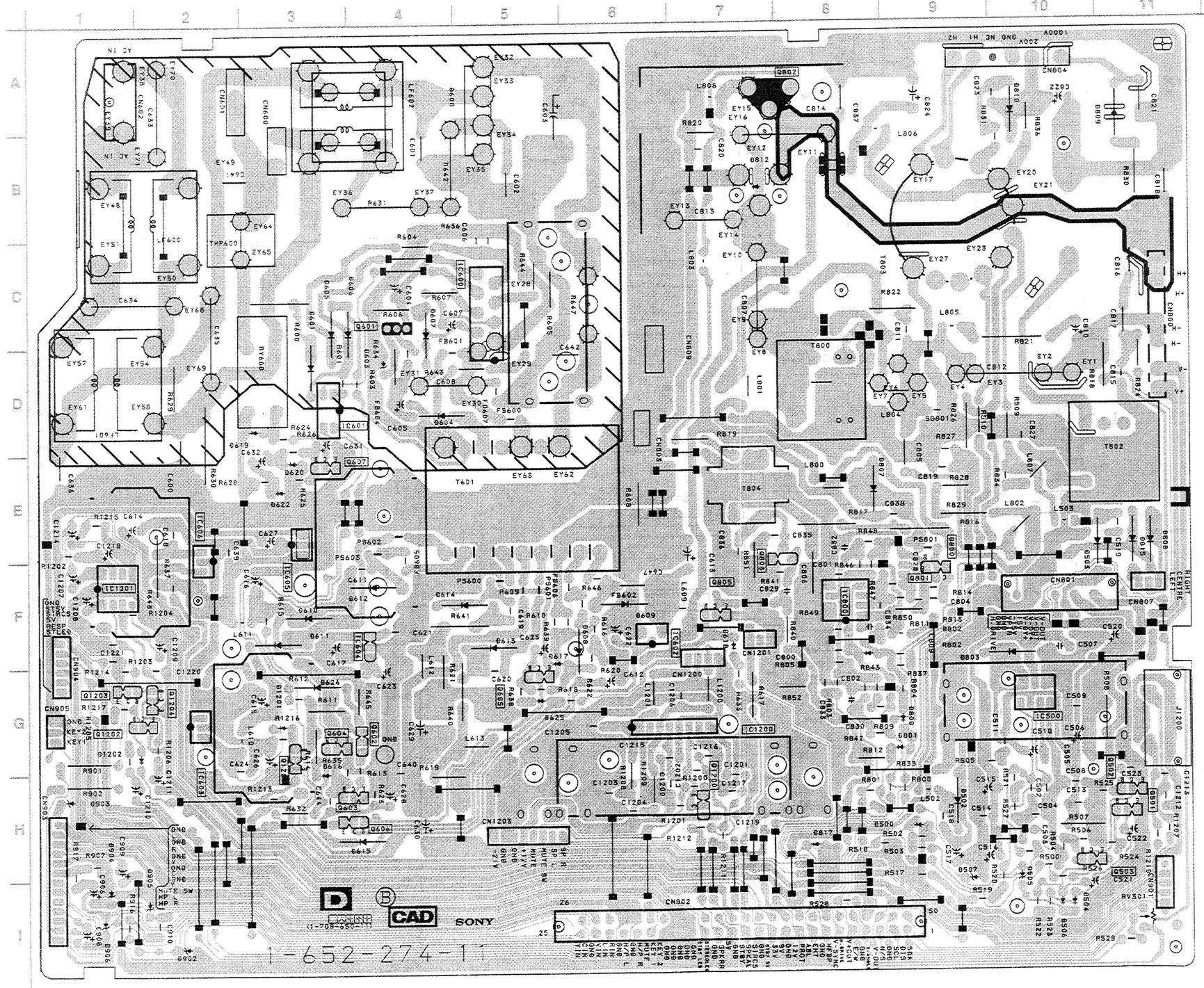
– D BOARD –



H2 [SIRCS RECEIVE INDICATOR] **H3** [CONTROL SW] **F1** [AC IN POWER SW] **D** [HV OUT PIN OUT POWER SUPPLY]

– D BOARD –





NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

IC	
IC500	G - 10
IC600	C - 5
IC601	D - 4
IC602	F - 7
IC603	H - 2
IC604	F - 4
IC605	F - 3
IC606	E - 2
IC800	F - 8
IC1200	G - 7
IC1201	F - 1

TRANSISTOR	
Q501	H - 11
Q502	H - 11
Q503	I - 11
Q601	C - 4
Q602	G - 4
Q603	H - 3
Q604	G - 3
Q605	G - 5
Q606	H - 4
Q607	E - 4
Q800	E - 9
Q801	F - 9
Q802	A - 8
Q803	F - 7
Q805	F - 7
Q1200	H - 7

DIODE	
D500	G - 9
D502	G - 9
D503	F - 10
D504	I - 10
D505	I - 10
D506	I - 10
D507	G - 9
D600	A - 4
D601	C - 3
D603	D - 4
D604	D - 4
D605	C - 3
D606	C - 4
D607	C - 4
D608	F - 6
D609	F - 6
D610	F - 3
D611	F - 3
D612	F - 4
D613	F - 5
D614	F - 4
D615	H - 4
D616	G - 3
D617	F - 5
D618	F - 7
D619	D - 2
D620	E - 3
D622	E - 3
D625	G - 5
D626	G - 3
D800	G - 9
D801	G - 9
D802	F - 9
D803	F - 9
D807	E - 9
D808	E - 11
D809	A - 11
D810	A - 10
D812	B - 7
D815	E - 11
D817	H - 8
D902	I - 2
D903	H - 1
D904	H - 1
D905	H - 2
D906	I - 1

B-:SSBE3.<29.>-B..

D { HV OUT / PIN OUT / POWER SUPPLY }

CN602 5P — TO — CN600 2P

D600 B4SB60L-F

C603 220 400V

JW014 5MM

JW128 10MM

R600 39k 5W

D601 EM1

Q601 2SC3852A

R647 0.1 1/2W :RF

R634 22

R603 10k

C606 1000p 500V

C604 100

C605 10 100V

R636 1k

R604 1.8k

D603 MTZJ-T-77-6.8C AMP

IC600 STR-S6708 POWER-CONTROL

C GND B D IN D OUT OCP F/B INH

FB601 1.1

R606 (JW) 12 5W

D607 EG1Z

C607 220 25V

R607 1Ω 1W :RS

R605 0.27 2W :RS

C608 1500P 2kV E

R644 100

CN901 5P

SERVICE CONNECTOR

GND	1
SCL	2
SDA	3
DIS	4
NC	5

CN902 50P

SDA, DIS, SCL, GND, N/S, V-OUT, V.ANGLE, GND, E/W, V+OUT, H DRIVE, V-SYNC, HFBP, GND, EHT, ABL, PROT, 12V, GND, 9V, 33V, STBY 5V, GND, SIRCS, AUDIO L, STBY, GND, 5V, AUDIO R, GND, STEREOLED, STBY LED, GND, GND, GND, GND, GND, KEY 2, KEY 1, MUTE, H/P R, GND, H/P L, GND, RIN, LIN, VIN, GND, CIN, YIN

R528, R529, RV301 470k, R517 1.8k, R518 1.8k

C909 1.0, C906 47, C910 0.01, C908 47

D902 MTZJ9.1, D903 MTZJ9.1, D904 MTZJ9.1, D905 MTZJ9.1, D906 MTZJ9.1

TO A BOARD CN001

R917 22, R907 75, R916 22, R902 59 1/2W :RC, R901 59 1/2W :RC

+21V

EHT

R833 2.2k :FPRD, R522 22k, R523 22k, C522 10

D504 1SS133T, D505 MTZJ-T-77-3.6A, D506 1SS133T, D507 MTZJ-T-77-5.1B

Q504 JC501TP-Q SWITCH, Q502 JA101-Q SWITCH

R524 4.7k, R525 4.7k, C521 10 25V

Q503 DTC144ES SWITCH, R526 2.2k

+33V

+SAW

IC500 STV9379 VERTICAL OUTPUT

V+I/P, VCC, F.B.-PLS, VEE, OUT-PUT, VCC (OUT), V-I/P

C503 0.1 100V :MPS, R503 10k, R502 2.2k, D500 MTZJ5.1

R519 5MM, R520 33k, R521 47k, R527 2.4k, C502 470p

C510 220, C507 2.2 :BP, C511 0.33 63V

R500 33k, R505 1.2 :FPRD, D803 GP08B-V.BOOST, R504 39k, R506 12k

C504 470p, C506 470 25V, C509 0.1

R508 1.5 2W :RS, L513 0.22 100V :MPS

+15V

VSYNC

HDRIVE

VPIN

R812 2.2k, R852 18k 1/4W

+5V

+12V

R842 100k, C830 4.7mF, R843 390k, R803 3.3k, R805 4.7k, C801 0.01, R101 10k

R847 330k 1/4W, R846 100k, C852 1mF, R848 220k

D807 RGP10G, L802 10mH, D808 GP08B, D815 GP08B, R818 22 2W

E/W

R837 15k, R800 2.2k 1/4W, D802 1SS133, R849 10k

HFBP

D817 MTZJ5.6, D801 1SS133, R802 15k, R804 12k, C800 0.0056 50V, L809 47mH

R814 330, C804 0.1, Q801 2SC4793 E/W-OUT

R813 470 1W, Q800 JC501TP-Q BUFFER, R850 4.7k

IC800 LM393P 5V CONTROL

C1207 100 16V, C1214 100 16V

R1204 2.2k, C1209 4.7, C1211 2.2, R1206 8.2k, C1210 2.2, R1205 8.2k, R1203 2.2k, C1208 4.7

IC1201 TBA2822M HEADPHONE AMP

C1218 220 16V, R1202 10 :FPRD, Q1202 MTZ-J-T-77-7.5B

Q1204 DTC143TS SWITCH, R1217 47k, Q1202 DTC114ES SWITCH, Q1203 DTC143TS SWITCH

CN807 3P :S-MICRO

RIGHT, CENTRE, LEFT

H POSITION

JW801, L800 3.9mH, L801 10, C807 0.82 200V

-21V

+5V

CN905 — TO H3 BOARD CN908

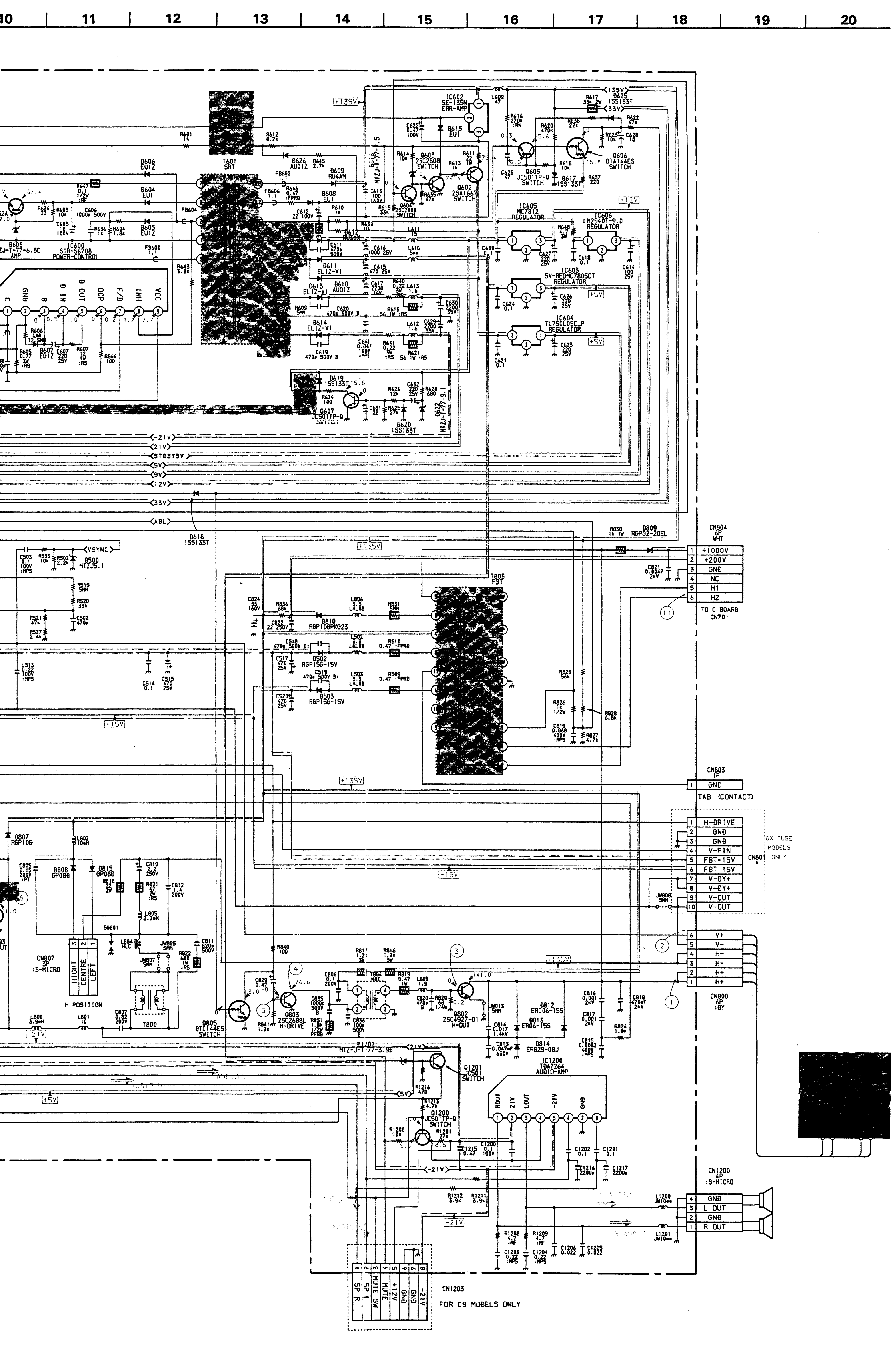
KEY1, KEY2, GND

CN903 — TO H1 BOARD CN906

GND, L, GND, R, GND, V, GND, C, GND, Y, MUTE SW, HP R, HP L

CN904 — TO H2 BOARD CN907

GND, S15V, SIRCS, +5V, RESP, STLED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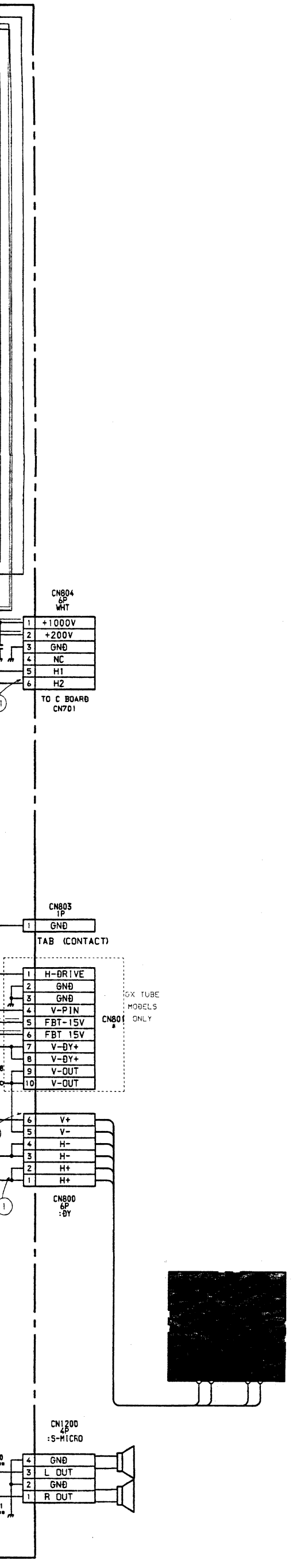
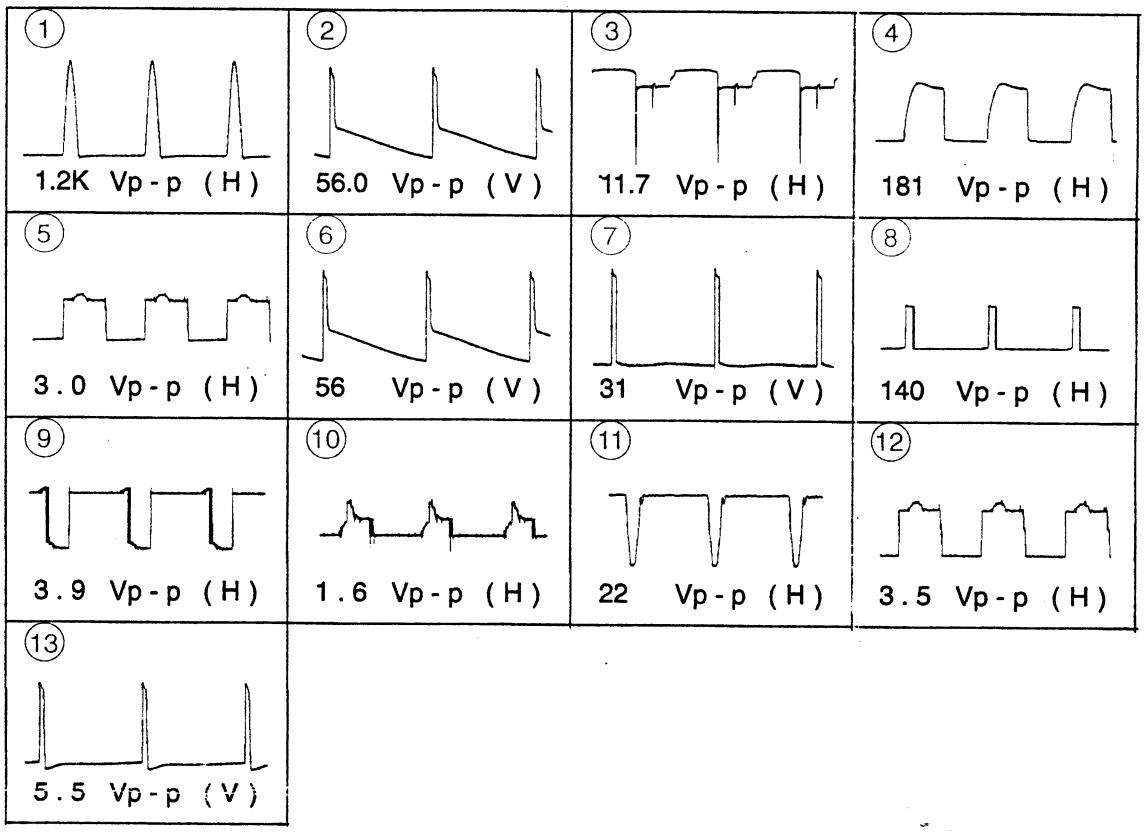
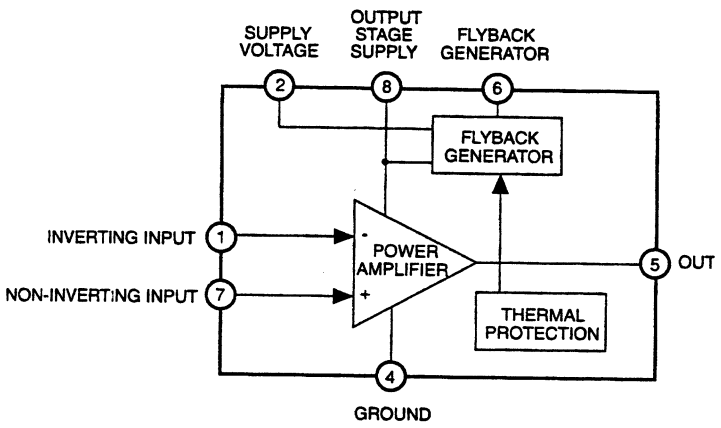
T601 SRT
IC600 STR-S6708 POWER-CONTROL
C
GND
B
D IN
D OUT
OCP
F/B
INH
VCC
IC602 SE-135N ERR-AMP
+135V
R601 1k
R612 8.2k
D626 AU01Z
R645 2.7k
D606 EU1Z
D604 EU1
D605 EU1Z
D603 MTZJ-T-77-6.8C AMP
R647 0.1 1/2W :RF
R634 22
R603 10k
C606 1000p 500V
C605 10 100V
R636 1k
R604 1.8k
FB600 1.1
FB602 1.1
FB604
FB606 1.1
R646 0.47 :FPRB
D609 RU4AM
D608 EU1
C612 22 100V
R610 1k
D612 RU3YX
R643 3.3k
R606 (JW) 12.5MM
R605 0.27 2W :RS
D607 EG1Z
C607 220 25V
R607 12 1W :RS
R644 100
C622 0.47 100V
D615 EU1
D619 MTZJ-T-77-7.5
C613 100 160V
R614 10k
Q603 2SC2808 SWITCH
R611 22 1W
R613 1k
Q602 2SA1667 SWITCH
Q604 2SC2808 SWITCH
R615 33k
R635 47k
R633 10
L611 15
L610 5mm
C611 470p 500V
C616 1000 25V
D611 EL1Z-V1
C615 470 25V
D613 EL1Z-V1
D610 AU01Z
C617 2200 16V
R640 0.22 3W :RS
L613 1.6
R609 5MM
C620 470p 500V B
R619 56 1W :RS
C630 2200 35V
D614 EL1Z-V1
L612 1.6
C629 2200 35V
C644 0.047 100V :MPS
R641 0.22 3W :RS
R621 56 1W :RS
C619 470p 500V B
D619 1SS133T
R624 100
Q607 JC501TP-Q SWITCH
R626 12k
C632 220 25V
R628 680
C631 22
R625 27k
D620 1SS133T
D622 MTZJ-T-77-9.1
L609 47
R616 270k :RN
R620 470k
R638 22k
R617 33k 2W
D625 1SS133T
R622 47k
R623 10k
C628 10
C625 47
Q605 JC501TP-Q SWITCH
R618 10k
D617 1SS133T
R637 220
Q606 DTA144ES SWITCH
135V
33V
+12V
IC605 MC7812 REGULATOR
IC606 LM2940T-9.0 REGULATOR
R648 4.7 3W
C639 0.1 B
C627 220 25V
C618 0.1
C614 100 25V
IC603 5V-REGMC7805CT REGULATOR
C624 0.1
C626 220 25V
+5V
IC604 TL750L05CLP REGULATOR
C621 0.1
C623 220 25V
-21V
21V
STDBY5V
5V
9V
12V
33V
ABL
D618 1SS133T
VSYNC
C503 0.1 100V :MPS
R503 10k
R502 2.2k
D500 MTZJ5.1
R519 5MM
R520 33k
R521 47k
C502 470p
R527 2.4k
C513 0.22 100V :MPS
C514 0.1
C515 470 25V
+15V
+135V
T803 FBT
C824 33 160V
R836 68k
C822 22 250V
L806 3.3 LHL08
R831 5MM
D810 RGP10GPKG23
C518 470p 500V B
L502 3.3 LHL08
R510 0.47 :FPRB
C517 470 25V
D502 RGP15G-15V
C519 470p 500V B
L503 3.3 LHL08
R509 0.47 :FPRB
C520 470 25V
D503 RGP15G-15V
R830 1k 1W
D809 RGP02-20EL
C821 0.0047 2kV
R829 56k
R826 1k 1/2W
R828 6.8k
C819 0.068 400V :MPS
R827 4.7k
CN804 6P WHT
+1000V
+200V
GND
NC
H1
H2
TO C BOARD CN701
CN803 1P
TAB (CONTACT)
CN801
H-DRIVE
V-PIN
FBT-15V
FBT 15V
V-DY+
V-OUT
GX TUBE MODELS ONLY
JW808 5MM
V+
V-
H-
H+
CN800 6P :DY
D807 RGP10G
L802 10mH
C805 0.15 200V :PT
D808 GP08D
D815 GP08D
R818 22 2W
C810 2.2 250V
R821 47 2W :RS
C812 1.4 200V
L805 2.2mH
SG801
L804 HLC
JW805 5MM
JW807 5MM
C811 820p 500V
R822 680 1W :RS
CN807 3P :S-MICRO
RIGHT
CENTRE
LEFT
H POSITION
T800
C807 0.82 200V
L800 3.9mH
L801 10
R840 100
C829 0.47
Q805 DTC144ES SWITCH
R841 1.2k
Q803 2SC2688L H-DRIVE
C806 0.1 200V
R817 1.2k 3W
R816 1.2k 3W
T804 HDT
R819 0.47 1W
L803 1.9
C835 1000p 500V B
R851 1.8k 1/2W PFRB
C836 100p 500V B
C820 470p B
R820 68 1/4W
Q802 2SC4927-01 H-OUT
JW013 5MM
C814 0.017 1.4kV
C813 0.047mF 630V
D812 ERC06-15S
D813 ER06-15S
D814 ERD29-08J
C816 0.001 2kV
C817 0.001 2kV
C815 0.0082 400V :MPS
C818 470pF 2kV
R824 1.8k
D1201 MTZ-J-T-77-3.9B
Q1201 JC501 SWITCH
R1216 470
R1213 4.7k
Q1200 JC501TP-Q SWITCH
R1200 10k
R1201 27k
C1215 0.47
C1200 0.1 100V
IC1200 TDA7264 AUDIO-AMP
ROUT
LOUT
GND
C1202 0.1
C1201 0.1
C1216 2200p
C1217 2200p
R1212 3.9k
R1211 3.9k
R1208 4.7 :RF
R1209 4.7 :RF
C1203 0.22 :MPS
C1204 0.22 :MPS
C1206 0.022
C1205 0.022
L1200 JW10mm
L1201 JW10mm
CN1200 4P :S-MICRO
L OUT
R OUT
SP R
SP L
MUTE SW
MUTE
+12V
CN1203
FOR C8 MODELS ONLY



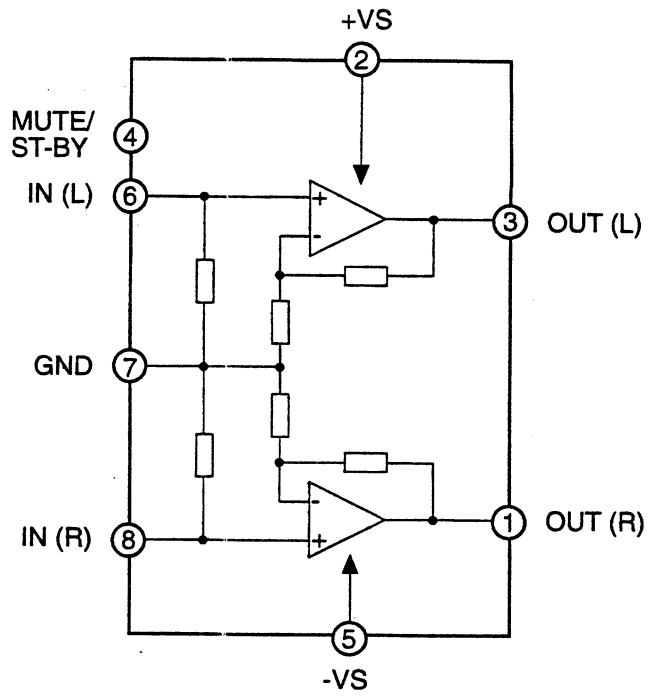
WAVEFORMS D BOARD



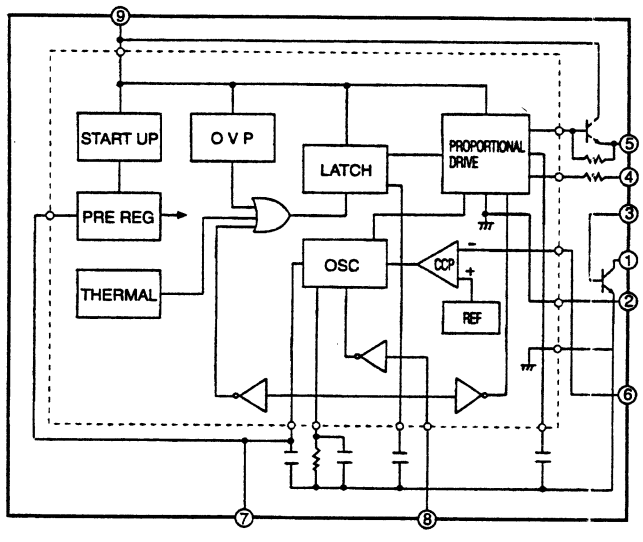
D BOARD IC500 STV9379

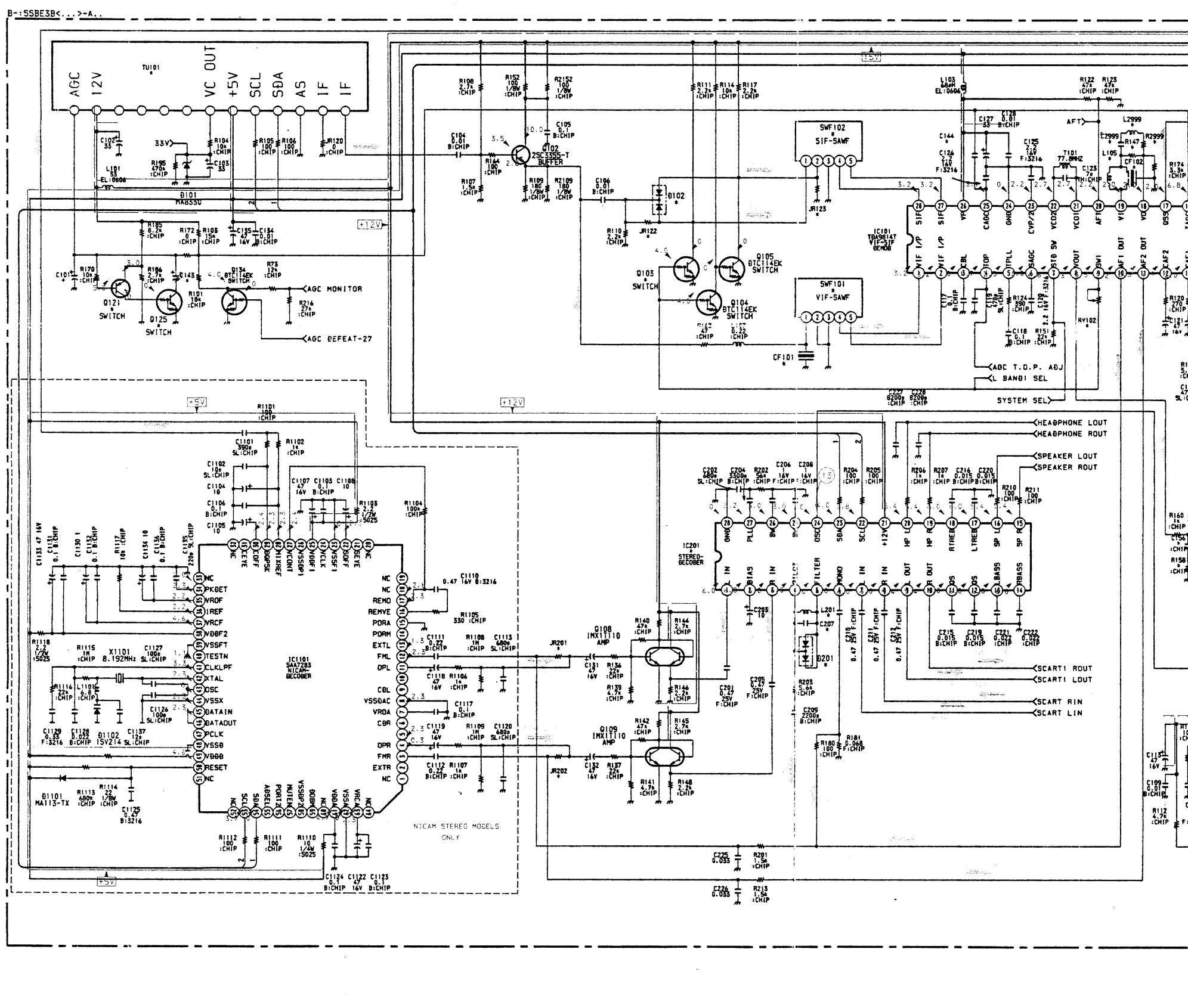


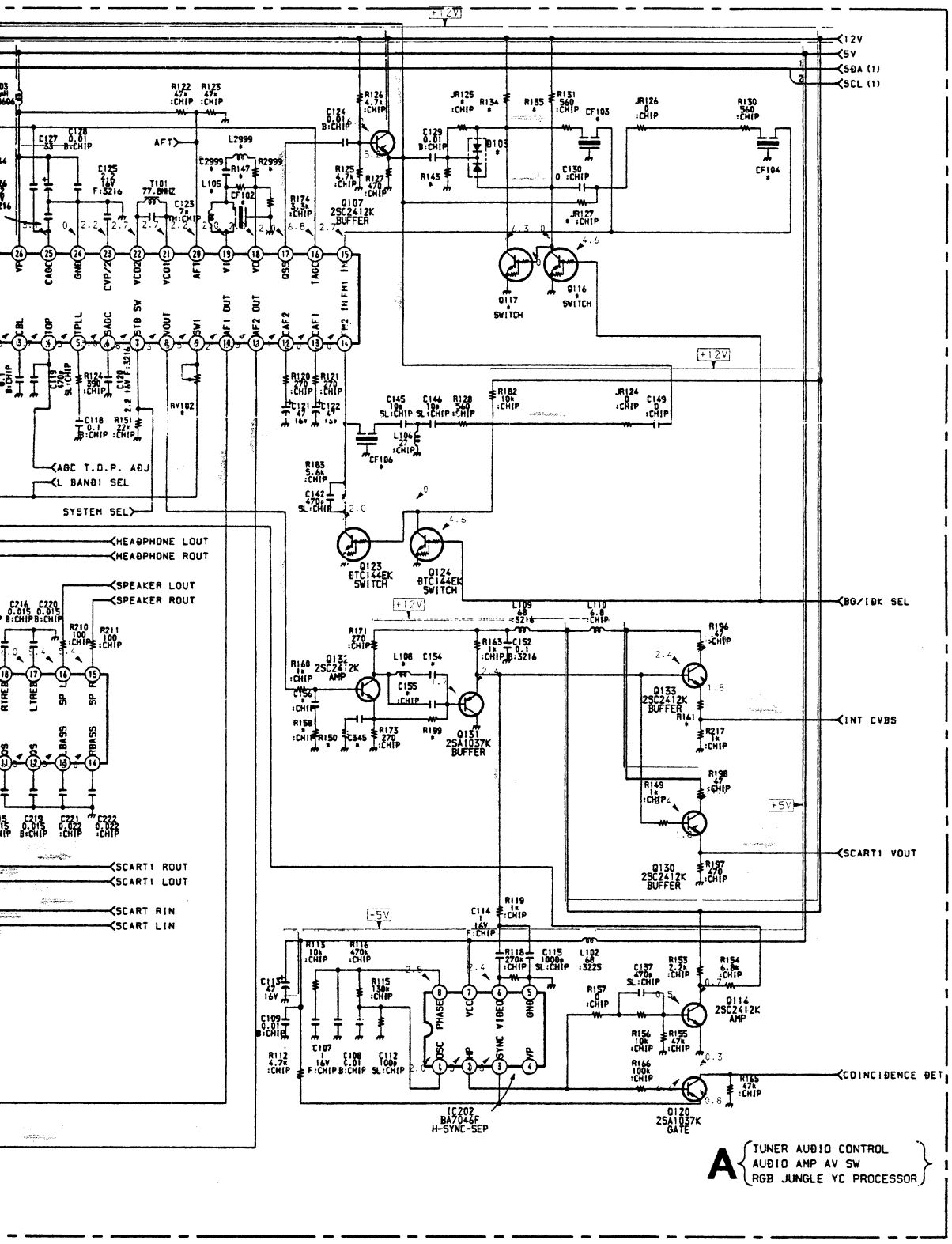
D BOARD IC1200 TDA7264

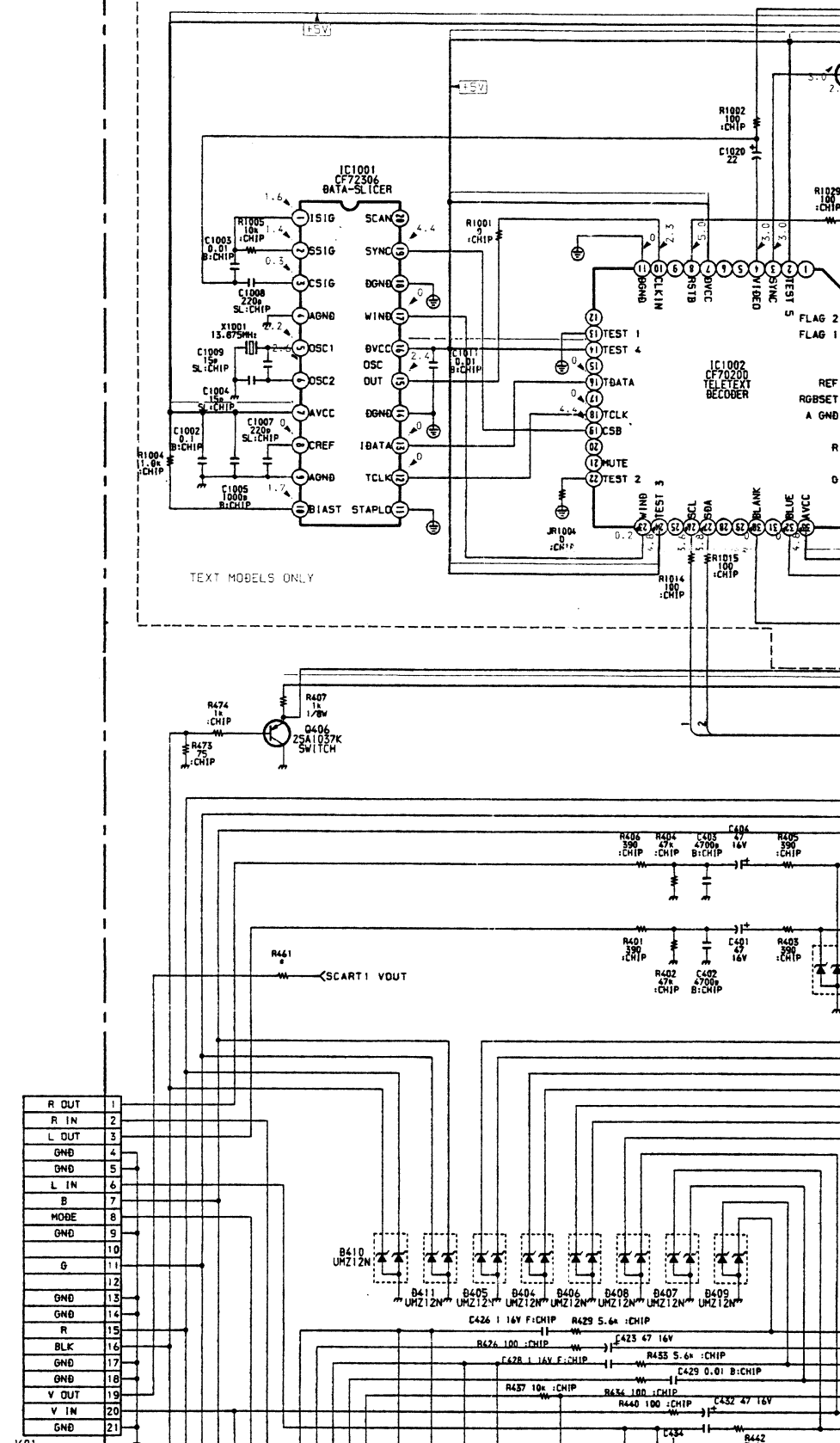


D BOARD IC600 STR-S6708




B-:SSBE3B<...>-A..
TU101
AGC
12V
VC OUT
+5V
SCL
SDA
AS
IF
IF
IC1101
SAA7285
NICAM-DECOBER
IC201
STEREO-DECOBER
IC101
TDA9814T
VIF-SIF
DEMOD
Q102
2SC3355-T
BUFFER
SWF102
SIF-SAWF
SWF101
VIF-SAWF
Q108
IMX11110
AMP
Q109
IMX11110
AMP
Q105
DTC114EK
SWITCH
Q104
DTC114EK
SWITCH
Q103
SWITCH
Q121
SWITCH
Q125
SWITCH
Q134
DTC114EK
SWITCH
X1101
8.192MHz
AGC MONITOR
AGC DEFEAT-27
AGC T.O.P. ADJ
L BAND1 SEL
SYSTEM SEL
HEADPHONE LOUT
HEADPHONE ROUT
SPEAKER LOUT
SPEAKER ROUT
SCART1 ROUT
SCART1 LOUT
SCART RIN
SCART LIN
NICAM STEREO MODELS ONLY

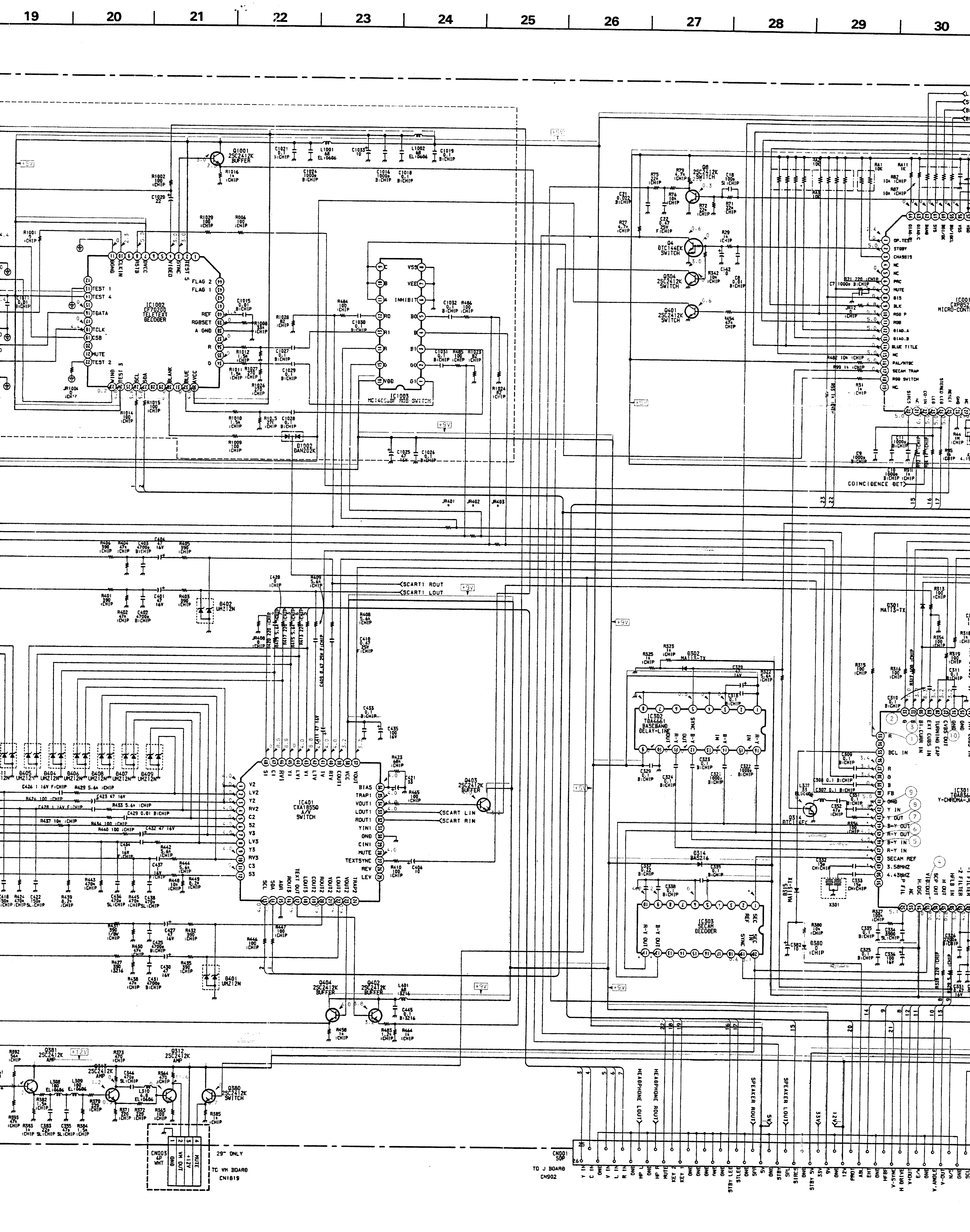




Voltages indicated with the mark ※ on the schematic diagram are shown in the table below.

A BOARD

IC	Pin	PAL	SECAM	NTSC 3.58	NTSC 4.43
IC301	17	4.0	4.0	4.0	0
	35	3.6	2.5	3.5	3.5
	44	1.5	3.1	1.5	1.5
	45	1.5	3.0	1.5	1.5
	48	1.7	4.4	1.6	1.7
	49	1.4	1.4	2.0	1.4
	50	2.0	2.0	1.4	2.0
	63	3.4	2.5	2.2	2.5
IC303	1	1.7	4.4	1.6	1.7
	11	1.5	3.0	1.5	1.5
	12	1.5	3.1	1.5	1.5



19
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30
Q1001 2SC2412K BUFFER
IC1002 CF70200 TELETEXT DECODER
BGND CLKIN RSTB DVCC VIDEO SYNC TEST 5
TEST 1 TEST 4 TDATA TCLK CSB MUTE TEST 2
FLAG 2 FLAG 1 REF RGBSET A GND R G
WIND TEST 3 SCL SDA BLANK BLUE AVCC
IC1003 MC14053BF RGB SWITCH
VSS VEE INHIBIT
D1002 DAN202K
+5V
+9V
COINCIDENCE DET
Q8 2SC2412K SWITCH
Q4 DTC144EK SWITCH
Q304 2SC2412K SWITCH
Q401 2SC2412K SWITCH
IC001 CXP852 MICRO-CONTROLLER
OP.TEST STDBY CHASSIS NC NC PRC MUTE DIS BLK RGB P RGB DIAG.A DIAG.B BLUE TITLE NC PAL/NTSC SECAM TRAP RGB SWITCH NC
SIRCS NC CO-IN LED STEREO LED RESET GND NC
DIAG.C DIAG.C BAND SYS DGI/DK DO/IDKL VSS VDD
SCART1 ROUT
SCART1 LOUT
D402 UMZ12N
IC401 CXA1855Q A/V SWITCH
V2 LV2 Y2 RV2 C2 S2 V3 LV3 Y3 RV3 C3 S3
S1 C1 RV1 Y1 LV1 V1 LTV TV RTV COUT1 VCC VOUT
BIAS TRAP1 VOUT1 LOUT1 ROUT1 YIN1 GND CIN1 MUTE TEXTSYNC REV LEV
SCL SDA ADR ROUT3 TEXT OUT LOUT3 COUT2 ROUT2 YOUT2 LOUT2 VOUT2 TRAP2
Q403 2SC2412K BUFFER
SCART LIN
SCART RIN
D405 UMZ12N D404 UMZ12N D406 UMZ12N D408 UMZ12N D407 UMZ12N D409 UMZ12N
D401 UMZ12N
Q404 2SC2412K BUFFER
Q402 2SC2412K BUFFER
IC302 TDA4661 BASEBAND DELAY-LINE
D302 MA113-TX
IC303 SECAM DECODER
D314 BAS216
D315 MA113-TX
Q314 DTC114EK
X301
D301 MA113-TX
IC301 TDA836 Y-CHROMA-J
BCL IN R G B FB GND Y IN Y OUT B-Y OUT R-Y OUT B-Y IN R-Y IN SECAM REF 3.58MHZ 4.43MHZ
Q381 2SC2412K AMP
Q313 2SC2412K AMP
Q312 2SC2412K AMP
Q380 2SC2412K SWITCH
+12V
CN003 4P WHT
GND VM OUT +12V MUTE
29" ONLY
TO VM BOARD CN1819
CN001 50P
TO J BOARD CN902
HEADPHONE LOUT
HEADPHONE ROUT
SPEAKER ROUT
SPEAKER LOUT
5V
33V
12V
Y IN C IN GND V IN L IN R IN GND HP L GND HP R MUTE KEY 2 KEY 1 GND GND GND GND STBY LED STLED GND SPR 5V GND STBY SPL SIRCS GND STBY 5V 33V 9V GND 12V PROT ABL EHT GND HFBF V-SYNC H DRIVE V+OUT E/W GND V.ANGLE V-OUT N/S GND

L BAND1 SEL
SYSTEM SEL
BG1/BK SEL
BG/10K SEL

IC001
CXP85232
MICRO-CONTROLLER

IC301
T0AB366
Y-CHROMA-JUNGLE

IC302
T0A4661
BASEBAND
DELAY-LINE

IC303
SECAM
DECODER

IC002
CAT24C16
NVM

Q1 2SC2412K BUFFER
Q2 2SC2412K BUFFER
Q3 2SC2412K BUFFER
Q4 BTC144EK SWITCH
Q5 2SA1037K
Q6 2SC2412K SWITCH
Q304 2SC2412K SWITCH
Q401 2SC2412K SWITCH
Q403 2SC2412K BUFFER
Q314 BTC114EK

D1 MA113-TX
D2 MA8039H-TX
D7 MA113-TX
D9 MA113-TX
D86 UMZ12N
D301 MA113-TX
D302 MA113-TX
D303 MA113-TX
D304 MA113-TX
D305 MA113-TX
D314 BAS216
D315 MA113-TX

CN002 7P WHT
1 R
2 G
3 B
4 +12V
5 GND
6 CUT OFF
7 GND
TO C BOARD CN703

CN001 50P
TO J BOARD CN902

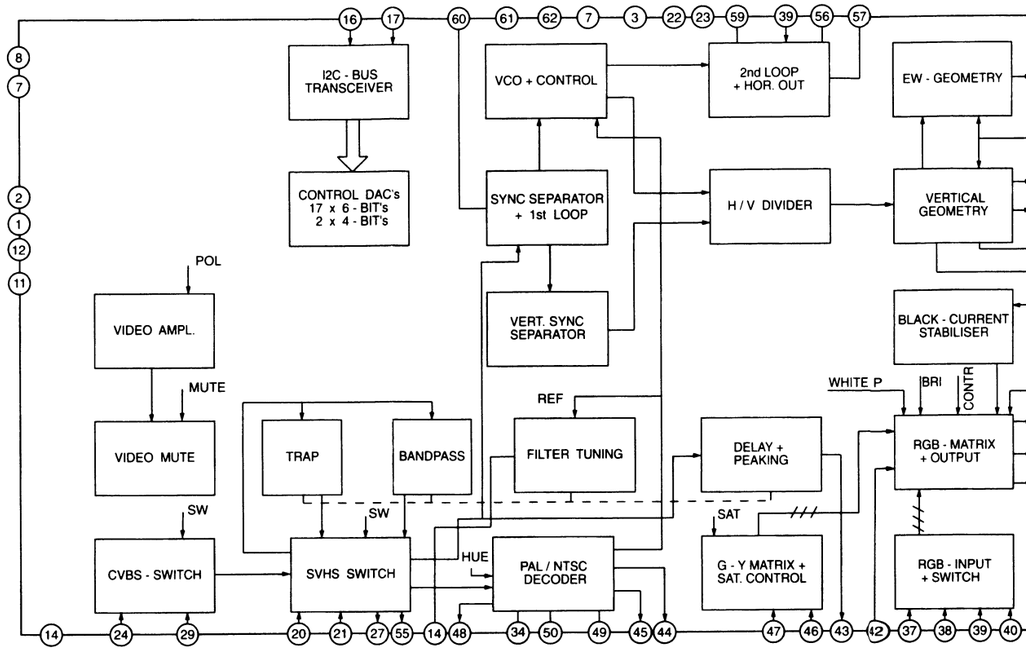
AFT
AGC MONITOR
AGC T.D.P. ADJ
SCART L IN
SCART R IN
SDA (1)
SCL (1)
COINCIDENCE DET
X301 4.194MHz
X2 4.194MHz

A { TUNER AUDIO CONTROL
AUDIO AMP AV SW
RGB JUNGLE YC PROCESSOR }

A BOARD * MARK

Ref	X2901D	X2901A	X2900B	X2901B	X2903E	X2902L	X2902U	X2901K
C101	22mF	22mF	4.7mF	4.7mF	22mF	22mF	22mF	22mF
C143	-	-	100mF 16V	100mF 16V	-	-	-	-
C144	-	-	1mF	1mF	-	-	-	-
C154	180pF	180pF	150pF	150pF	180pF	-	-	180pF
C155	47pF	47pF	33pF	33pF	47pF	-	-	47pF
C156	18pF	18pF	-	-	18pF	-	-	18pF
C207	0.0018mF 100V	0.0018mF 100V	0.0018mF 100V	0.0018mF 100V	0.0018mF 100V	-	-	0.0018mF 100V
CF101	EFCV4045A4	EFCV4045A4	EFCV4045A4	EFCV4045A4	EFCV4045A4	-	-	EFCV4045A4
CF102	5.5mHz	5.5mHz	5.5mHz/6.6mHz	5.5mHz/6.6mHz	5.5mHz	6.0mHz	6.0mHz	5.5mHz
CF103	5.5mHz	5.5mHz	5.5mHz	5.5mHz	5.5mHz	-	-	5.5mHz
CF104	6.5mHz	-	6.0mHz	6.0mHz	-	SFE6.0MB	SFE6.0MB	6.5mHz
CF106	5.75mHz	5.75mHz	5.75mHz	5.75mHz	5.75mHz	-	-	5.75mHz
D102	-	-	DAN202K	DAN202K	-	-	-	-
D103	DAN202K	-	DAN202K	DAN202K	-	-	-	DAN202K
D201	DA204K	DA204K	DA204K	DA204K	DA204K	-	-	DA204K
IC201	TDA6612	TDA6612	TDA6612	TDA6612	TDA6612	TDA6622	TDA6622	TDA6612
IC303	TDA8395T	-	TDA8395T	TDA8395T	-	-	-	TDA8395T
JR122	0 :CHIP	0 :CHIP	-	-	0 :CHIP	0 :CHIP	0 :CHIP	0 :CHIP
JR123	0 :CHIP	0 :CHIP	-	-	0 :CHIP	0 :CHIP	0 :CHIP	0 :CHIP
JR125	-	0 :CHIP	-	-	0 :CHIP	-	-	-
JR127	-	-	-	-	-	0 :CHIP	-	-
JR201	0 :CHIP	0 :CHIP	0 :CHIP	0 :CHIP	-	-	-	0 :CHIP
JR202	0 :CHIP	0 :CHIP	0 :CHIP	0 :CHIP	-	-	-	0 :CHIP
JR401	-	-	0 :CHIP	-	-	-	-	-
JR402	-	-	0 :CHIP	-	-	-	-	-
JR403	-	-	0 :CHIP	-	-	-	-	-
L105	15µH	15µH	8.2µH	8.2µH	15µH	15µH	15µH	15µH
L108	15µH	15µH	27µH	27µH	15µH	-	-	15µH
L201	4.7mmH	4.7mmH	4.7mmH	4.7mmH	4.7mmH	-	-	4.7mmH
Q103	-	-	DTC114EK	DTC114EK	-	-	-	-
Q116	DTC144EK	-	DTC144EK	DTC144EK	-	-	-	DTC144EK
Q117	DTC144EK	-	DTC144EK	DTC144EK	-	-	-	DTC144EK
Q121	-	-	2SA1037K	2SA1037K	-	-	-	-
Q125	-	-	DTC114EK	DTC114EK	-	-	-	-
R134	2.2K	-	2.2K	2.2K	-	-	-	2.2K
R135	2.2K	-	2.2K	2.2K	-	-	-	2.2K
R143	2.2K	-	2.2K	2.2K	-	-	-	2.2K
R147	270	270	150	150	270	270	270	270
R158	12K	12K	-	-	12K	-	-	12K
R199	330	330	470	470	330	-	-	330
RV102	-	-	22K	22K	-	-	-	-
SWF101	K3953M	K3953M	K3953M	K3953M	K3953M	J3950M	J3950M	K3953M
SWF102	K9350M	K9350M	K9453M	K9453M	K9350M	K9350M	K9350M	K9350M
TU101	UV-916H	UV-916H	UV-916H	UV-916H	UV-916H	U-944C	U-944C	UV-916H

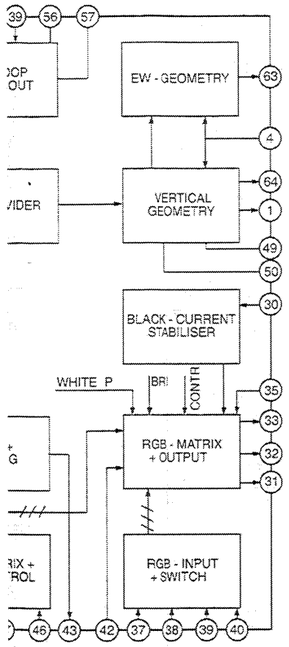
A BOARD IC301 TDA8366T



WAVEFORMS A BOARD

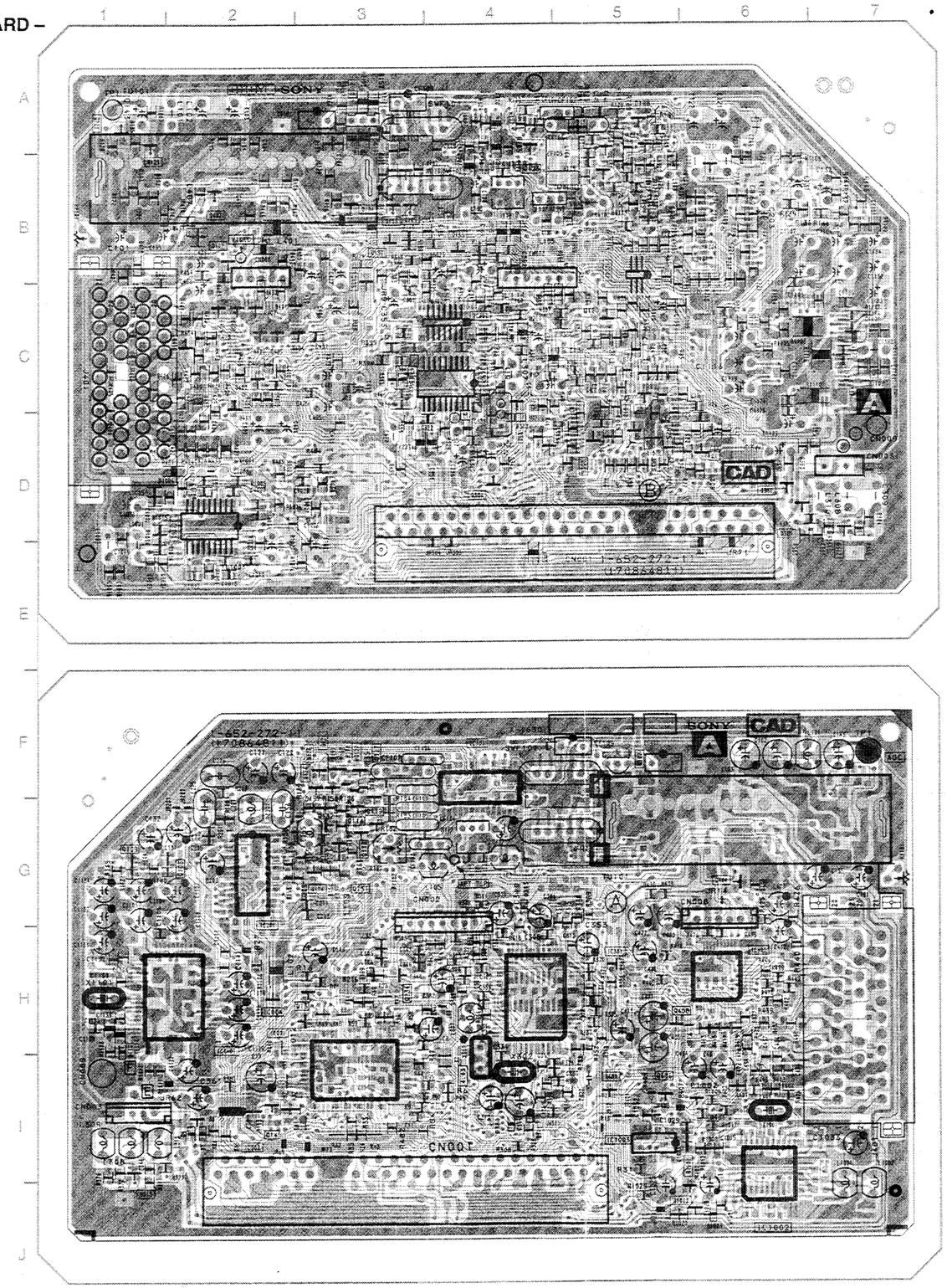
① 3.5 Vp-p (H)	② 3.0 Vp-p (H)	③ PAL.SECAM 2.5 Vp-p (H)	③ NTSC 2.3 Vp-p (H)	④ PA 0.1 V
④ SECAM 1.1 Vp-p (H)	④ NTSC 0.9 Vp-p (H)	⑤ 1.0 Vp-p (H)	⑥ 1.4 Vp-p (H)	⑦ PA 1.4 V
⑦ SECAM 1.1 Vp-p (H)	⑧ PAL 0.8 Vp-p (H)	⑧ SECAM 1.5 Vp-p (H)	⑧ NTSC 0.9 Vp-p (H)	⑨ PA 0.5 V
⑨ NTSC 0.4 Vp-p (H)	⑩ 1.0 Vp-p (H)			

A TUNER AUDIO CONTROL
AUDIO AMP AV SW
RGB JUNGLE YC PROCESSOR



NTSC	④ PAL
Vp-p (H)	0.1 Vp-p (H)
	⑦ PAL.NTSC
Vp-p (H)	1.4 Vp-p (H)
NTSC	⑨ PAL.SECAM
Vp-p (H)	0.5 Vp-p (H)

– A BOARD –

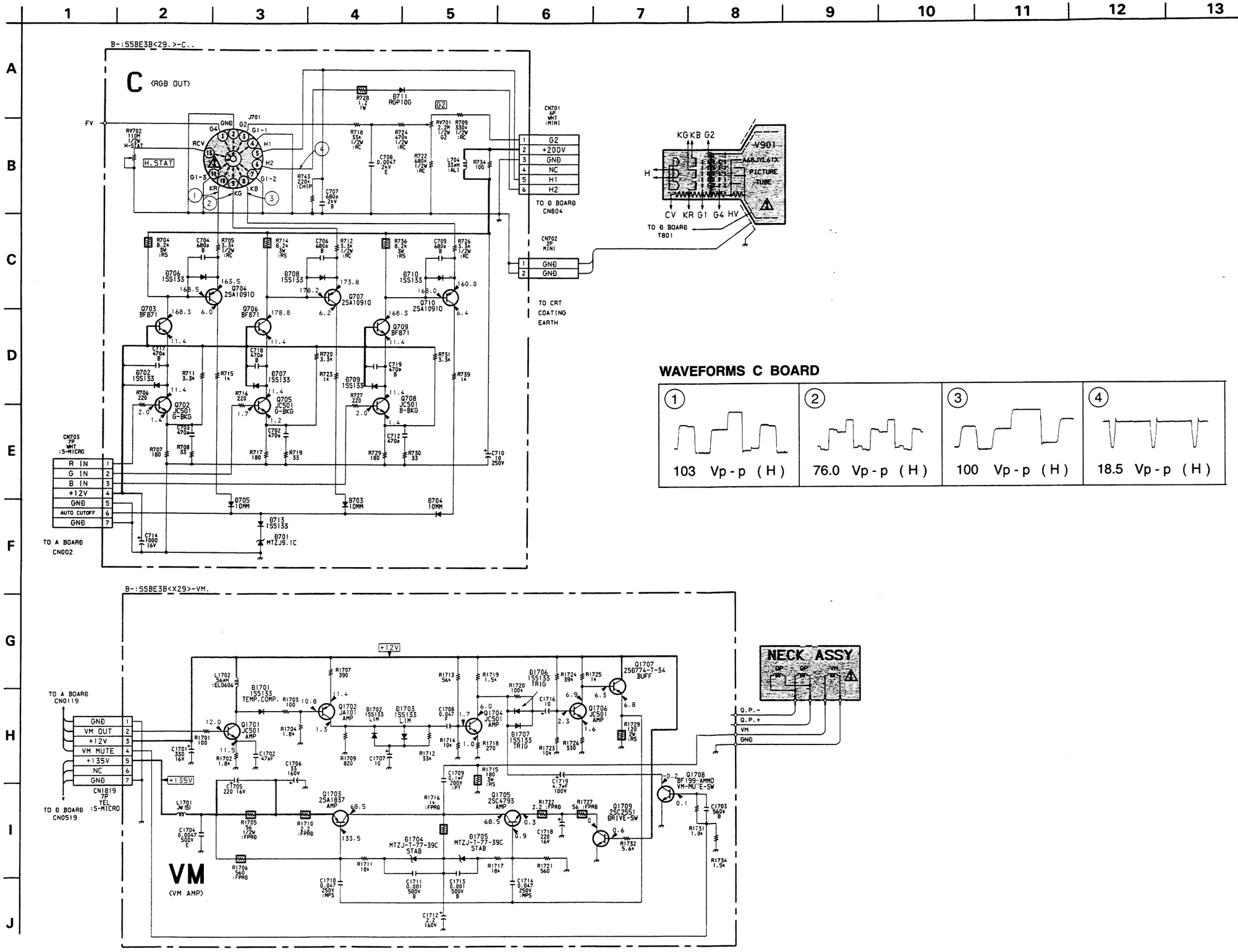


IC		TRANSISTOR	
IC001	H - 2	Q4	D - 6
IC002	I - 2	Q8	C - 5
IC101	F - 4	Q11	D - 5
IC201	G - 2	Q12	C - 5
IC202	B - 5	Q14	I - 2
IC301	H - 5	Q102	F - 5, A - 3
IC302	C - 4	Q103	B - 3
IC303	C - 4	Q104	B - 3
IC401	H - 6	Q105	B - 3
IC1001	D - 2	Q107	B - 5
IC1002	J - 6	Q108	G - 2
IC1003	I - 5	Q109	G - 1
IC1101	H - 2	Q114	G - 3
		Q116	G - 3
		Q117	F - 3
		Q120	C - 5
		Q121	A - 1
		Q123	B - 4
		Q124	F - 3
		Q125	B - 1
		Q130	B - 3
		Q131	G - 3
		Q132	G - 3
		Q133	B - 4
		Q304	D - 4
		Q312	E - 7
		Q313	J - 1
		Q314	C - 4
		Q380	D - 6
		Q381	D - 6
		Q401	I - 5
		Q402	B - 2
		Q403	B - 3
		Q404	G - 6
		Q1001	I - 6
		Q1003	J - 5

DIODE	
D6	I - 2
D7	I - 2
D9	I - 2
D11	D - 5
D101	B - 2
D102	B - 4
D103	A - 5
D201	B - 6
D301	G - 4
D302	C - 4
D303	H - 3
D304	B - 5
D305	C - 4
D314	B - 3
D380	I - 4
D401	C - 2
D402	C - 2
D404	C - 2
D405	C - 2
D406	C - 2
D407	C - 2
D408	C - 2
D409	C - 2
D410	C - 2
D411	D - 2
D1002	I - 6
D1003	J - 6
D1101	H - 1
D1102	C - 7

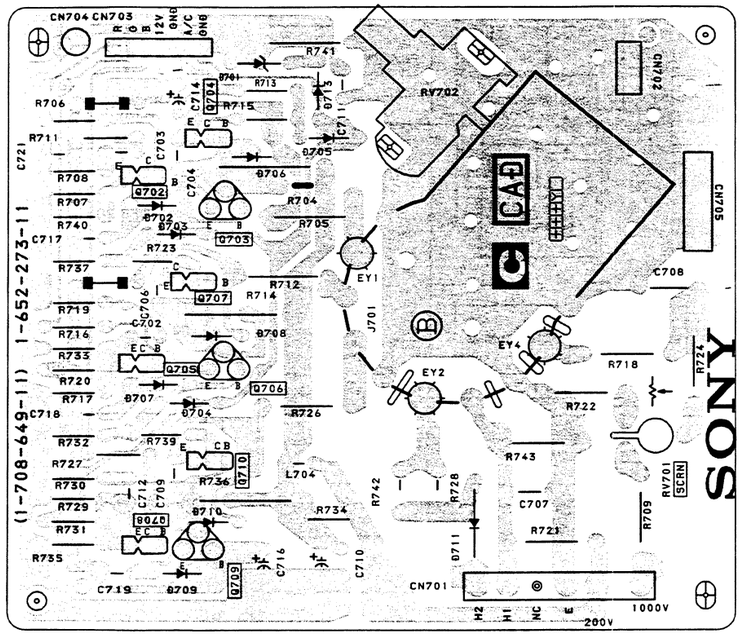
Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

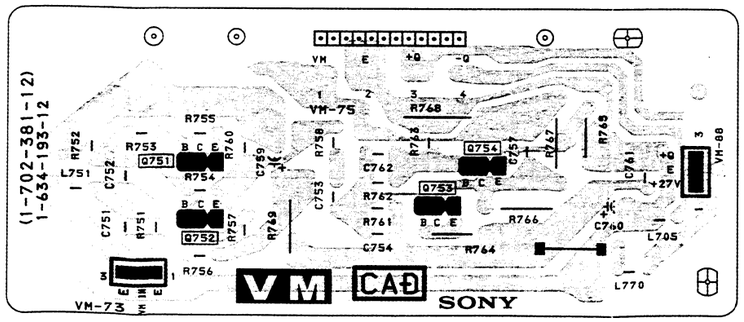

B-:SSBE3B<29.>-C..
C
<RGB OUT>
FV
J701
GND G2 G1-1 G4 H1 H2 G1-2 G1-3 KR KB KG RCV
H.STAT
RV702 1.0M 1/2W H-STAT
R728 1.2 1W
D711 RGP10G
G2
RV701 2.2M 1/2W G2
R709 330k 1/2W :RC
R718 33k 1/2W :RC
R724 470k 1/2W :RC
C708 0.0047 2kV E
R722 680k 1/2W :RC
L704 33mH :ALI
R734 100
R743 220 :CHIP
C707 680p 2kV B
CN701 6P WHT :MINI
1 G2
2 +200V
3 GND
4 NC
5 H1
6 H2
TO B BOARD CN804
CN702 2P MINI
1 GND
2 GND
TO CRT COATING EARTH
KG KB G2
V901
A68JYL61X
PICTURE TUBE
H
CV KR G1 G4 HV
TO B BOARD T801
R704 8.2k 3W :RS
C704 680p B
R705 3.3k 1/2W :RC
R714 8.2k 3W :RS
C706 680p B
R712 3.3k 1/2W :RC
R736 8.2k 3W :RS
C709 680p B
R726 3.3k 1/2W :RC
D706 1SS133
D708 1SS133
D710 1SS133
Q704 2SA10910
Q707 2SA10910
Q710 2SA10910
Q703 BF871
Q706 BF871
Q709 BF871
168.5 163.5 168.3 6.0 178.2 173.8 178.8 6.2 168.0 160.0 168.3 6.4 11.4
C717 470p B
C718 470p B
C719 470p B
R720 3.3k
R731 3.3k
R739 1k
D702 1SS133
D707 1SS133
D709 1SS133
R711 3.3k
R715 1k
R723 1k
R706 220
R716 220
R727 220
Q702 JC501 G-BKG
Q705 JC501 G-BKG
Q708 JC501 B-BKG
2.0 1.4 1.7 1.2 2.0 1.4
C703 470p
C702 470p
C712 470p
R707 180
R708 33
R717 180
R719 33
R729 180
R730 33
C710 10 250V
CN703 7P WHT :S-MICRO
R IN 1
G IN 2
B IN 3
+12V 4
GND 5
AUTO CUTOFF 6
GND 7
TO A BOARD CN002
D705 10MM
D703 10MM
D704 10MM
D713 1SS133
D701 MTZJ9.1C
C714 1000 16V
WAVEFORMS C BOARD
1
103 Vp-p (H)
2
76.0 Vp-p (H)
3
100 Vp-p (H)
4
18.5 Vp-p (H)
B-:SSBE3B<X29>-VM.
+12V
L1702 56uH :EL0606
D1701 1SS133 TEMP.COMP.
R1703 100
10.8 11.4
Q1702 JA101 AMP
R1707 390
D1702 1SS133 LIM
D1703 1SS133 LIM
C1708 0.047 F
1.7 6.0
Q1704 JC501 AMP
R1713 56k
R1719 1.5k
D1706 1SS133 TRIG
R1720 100k
C1716 10
R1724 39k
R1725 1k
Q1707 2S0774-T-34 BUFF
6.9 6.3 6.8
Q1706 JC501 AMP
2.3 1.6
R1729 120 2W :RS
R1726 330
R1723 10k
D1707 1SS133 TRIG
R1714 10k
R1718 270
C1707 10
R1709 820
R1712 33k
C1706 33 160V
C1709 0.1uF 200V :PT
R1715 180 3W :RS
C1719 4.7uF 100V
Q1708 BF199-AMMO VM-MUTE-SW
0.2 0.1
C1703 560p B
R1731 1.8k
R1734 1.5k
NECK ASSY
CP CP VM
Q.P.-
Q.P.+
VM
GND
TO A BOARD CN0119
GND 1
VM OUT 2
+12V 3
VM MUTE 4
+135V 5
NC 6
GND 7
CN1819 7P YEL :S-MICRO
TO B BOARD CN0519
+135V
C1705 220 16V
L1701 JW
Q1703 2SA1837 AMP
68.5 133.5
R1705 56 1/2W :FPRB
R1710 2.2 :FPRB
R1722 2.2 :FPRB
R1727 56 :FPRB
Q1705 2SC4793 AMP
68.5 0.3 0.9
Q1709 2SC2551 DRIVE-SW
0 0.6
R1732 5.6k
C1718 220 16V
C1704 0.0047 500V E
R1706 560 :FPRB
D1704 MTZJ-T-77-39C STAB
D1705 MTZJ-T-77-39C STAB
R1711 18k
R1717 18k
R1721 560
C1710 0.047 250V :MPS
C1711 0.001 500V B
C1713 0.001 500V B
C1714 0.047 250V :MPS
C1712 2.2 160V
VM
<VM AMP>
A
B
C
D
E
F
G
H
I
J
1
2
3
4
5
6
7
8
9
10
11
12
13

C [RGB OUT] **VM** [VM AMP]

– C BOARD –

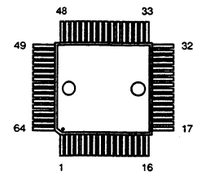


– VM BOARD –

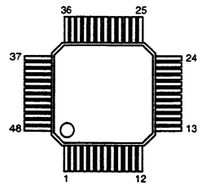


5.4 SEMICONDUCTORS

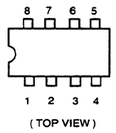
TDA8366
CF70200FN



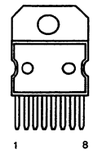
CXA1855Q
SAA7283
CXP85232



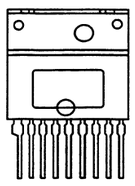
LM393
TDA7264



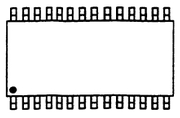
TDA7264



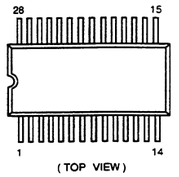
STRS6708



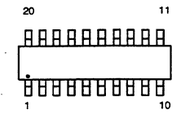
TDA6622



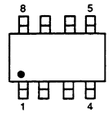
TDA9814



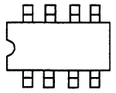
CF72306DW



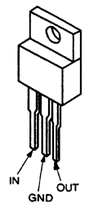
CAT24C16J



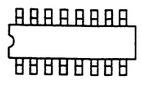
BA7046
TDA2822



MC7812
MC7805CT
LM2940T
SE135N



MC14053BF



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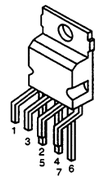
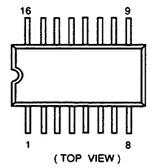
JA101
JC501TP

STV9379



TDA4661/V2



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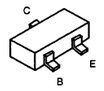
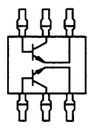
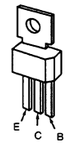
2SA1037-G



1MX1T110



BF871



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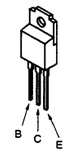
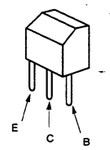
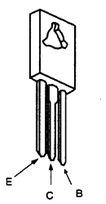
2SC4793



2SD774-34



2SC2688-LK



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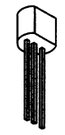
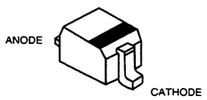
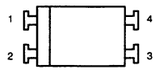


DTZ3.6A



TLP621GR



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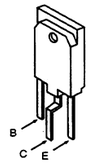
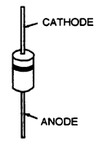
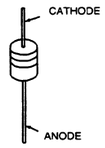


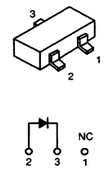
RGP10GPKG23
RGP15GPKG23
GP08DPKG23
RU-4AM
EL1Z
EU-1-V1
EU-1ZV1



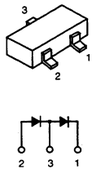
MTZJ-9.1C
MTZJ-5.1B
MTZJ-9.1
MTZJ-3.6A
MTZJ-6.8C
MTZJ-39C
1SS133



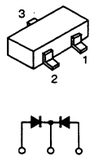
MA704WK



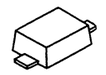
DA204K



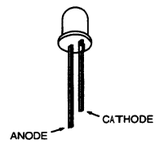
UMZ12N



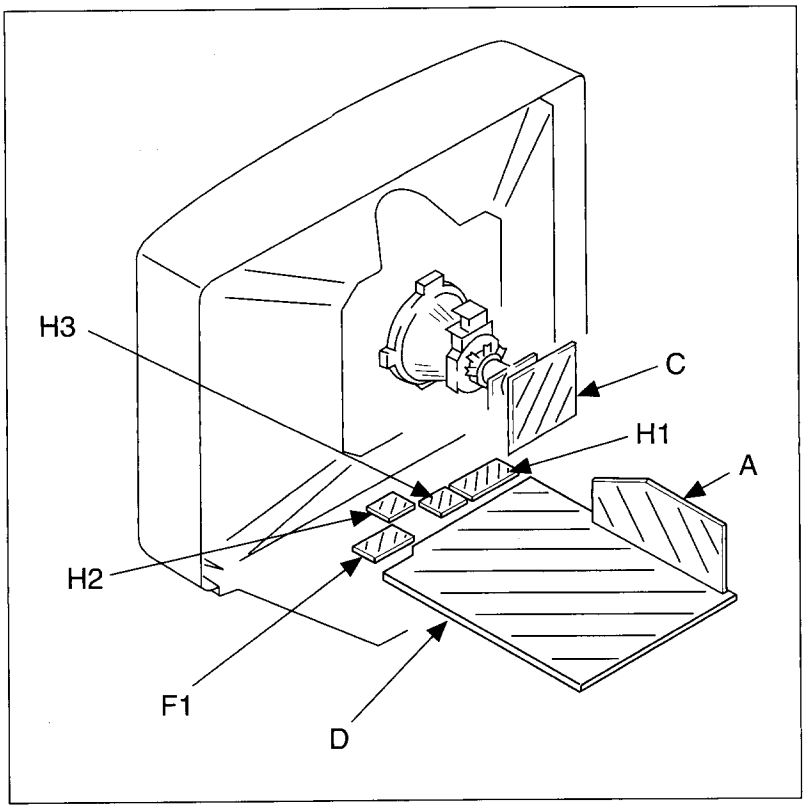
MA8039
MA113



SLR-54VR3



5-2. CIRCUIT BOARDS LOCATION



Reference information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OX
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUN
	※	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

Note: The components identified by shading a ⚠ are critical for safety. Replace o part number specified.

Note: Les composants identifiés par une par une marque ⚠ sont d'une im critique pour la sécurité. Ne les r que par des pièces de numéro s

5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

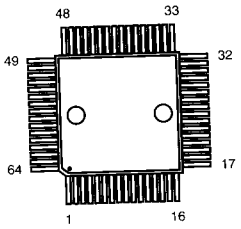
- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytic.
- Indication of resistance, which dose not have one for rating electrical power, is as follows.

Pitch : 5mm Rating electrical power : ¼W

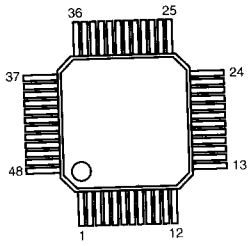
- Chip resistor is in 1/10W.
- All resistors are in ohms. kΩ = 1000Ω, MΩ = 1000KΩ
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- : panel designation or adjustment for repair.
- All variable and adjustable resistors have charactristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- : B + bus.
- : B − bus.
- : signal path. (RF)
- : earth - ground
- : earth - chassis

5.4 SEMICONDUCTORS

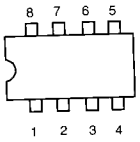
TDA8366
CF70200FN



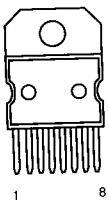
CXA1855Q
SAA7283
CXP85232



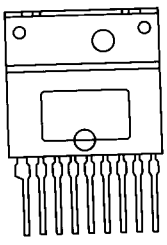
LM393
TDA7264



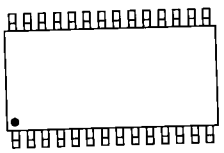
TDA7264



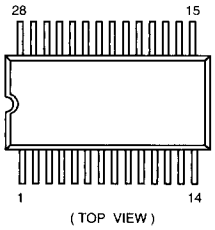
STRS6708



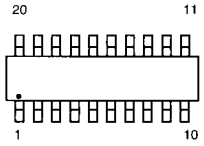
TDA6622



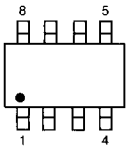
TDA9814



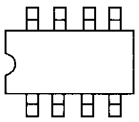
CF72306DW



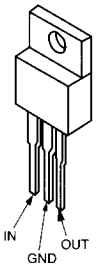
CAT24C16J



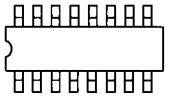
BA7046
TDA2822



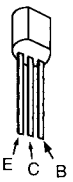
MC7812
MC7805CT
LM2940T
SE135N



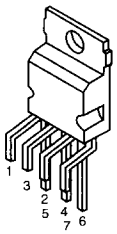
MC14053BF



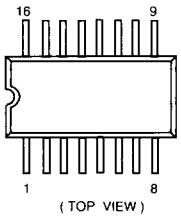
2SA10910
2SC2551-0
JA101
JC501TP



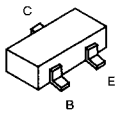
STV9379



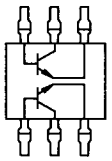
TDA4661/V2



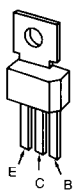
DTC144EK
DTA144EK
2SC2412K
2SA1037-G



1MX1T110



BF871



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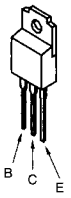
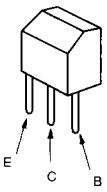
2SC4793



2SD774-34



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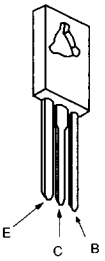

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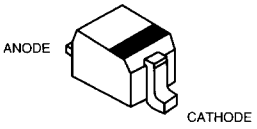
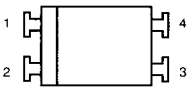
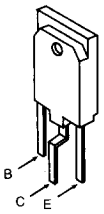


TLP621GR



2SC4927-01



RGP10GPKG23
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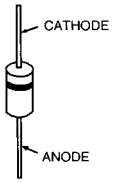
GP08DPKG23
RU-4AM
EL1Z
EU-1-V1
EU-1ZV1



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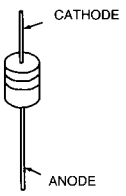
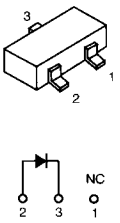
MTZJ-5.1B
MTZJ-9.1
MTZJ-3.6A
MTZJ-6.8C
MTZJ-39C
1SS133



MA704WK



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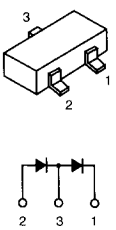

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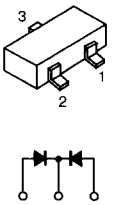
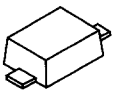
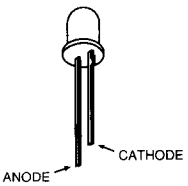


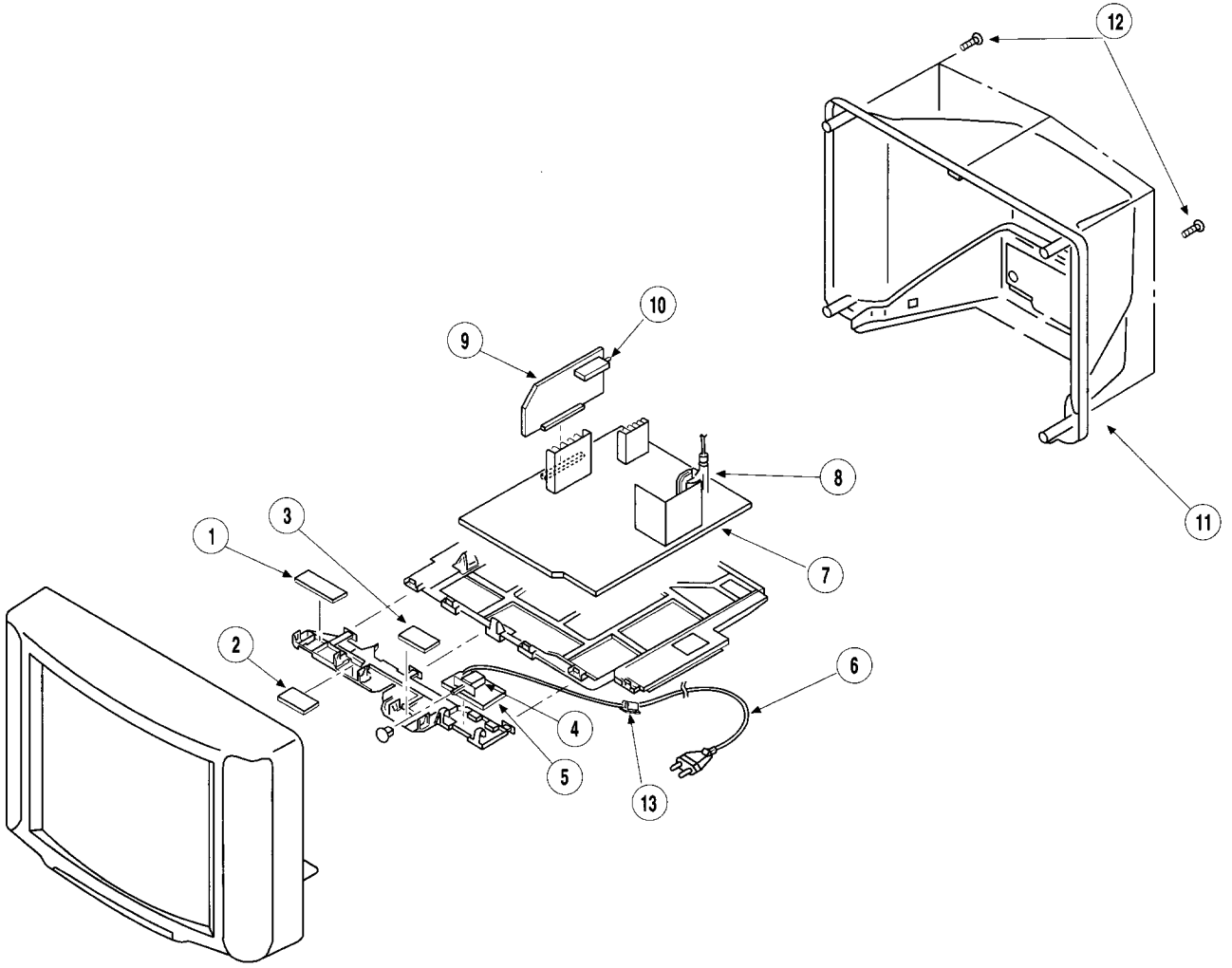
MA8039
MA113



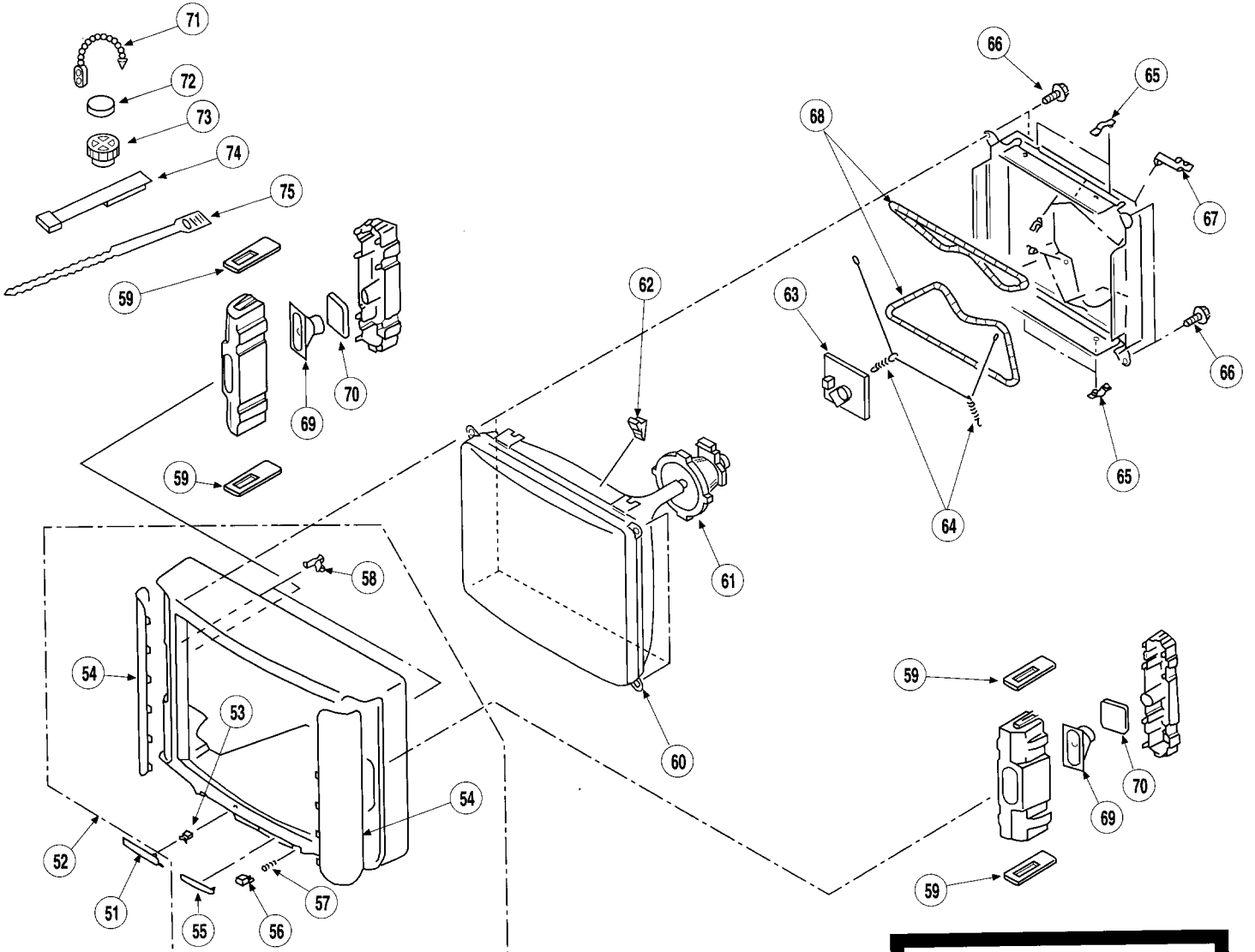
SLR-54VR3



6-1. CHASSIS



6-2. PICTURE TUBE



The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.